

Current Effects of Army Materiel Command Operation Order 16-189 at TACOM LCMC

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Abstract

Army Materiel Command (AMC) issues an Operations Order 16-189 (OPORD) that changed mission alignment in several organizations. The purpose of this study is to identify the nature and magnitude of changes that have been made to achieve the intent of the AMC OPORD with regard to the organizational characteristics of Tank – Automotive Armaments Command (TACOM), Army Contracting Command-Warren (ACC-WRN) and Tank Automotive Research Development and Engineering Center (TARDEC), and the community of the TACOM Life Cycle Management Command (LCMC). The intent of the OPORD is:

"Commander's Intent. As the Army continues to evolve, my intent is to posture AMC to ensure that we provide readiness to the future force while continuing to take care of the soldiers of today and in the future. AMC will align mission command toward three portfolio-based organizations empowered to provide sustainable readiness in aviation and missiles, communications and electronics, and tank and automotive. AMC will achieve a command-wide synchronized and integrated effort across the entire materiel acquisition life cycle, and provide a framework for future change to increase AMC's continued ability to shape and influence acquisition policy, procedures, and materiel solutions to meet Warfighter needs and enhance readiness today and for the future force (Army Materiel Command, 2016).

The OPORD is one of the most recent examples of how the Army acquisition community has changed to provide the materiel needed by the war-fighting community to executing Department of Army (DA) and Department of Defense (DoD) operational missions. Analyzing the OPORD in the context of previous changes to the Army acquisition community and in the context of change management models will help bring understanding of the effectiveness of the OPORD. An historical review of significant changes in the Army acquisition community was done to provide contextual understanding of the AMC role in acquisition as well as to identify the limits of this study, and opportunities for further research.

Most agree that the DA acquisition workforce has seen little or no impact of the OPORD on the execution of their duties and responsibilities. However, its release caused immediate concerns within Congress and parts of the Army. On March 10, 2016, the Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASA(ALT) requested the Army Audit Agency (AAA) to review the effects of the OPORD on efficient contracting operations in the Army. On May 10, 2017, the Government Accountability Office (GAO) announced its intent to inquire into the nature of the OPORD, and conducted a similar review of its effects.

Change management is critical to the success of any organization, and analyzing how an organization is executing its change has many advantages. In the commercial market environment, analyzing change helps to ensure the organization's mission remains in sync with its vision, and analyzing change as it takes effect in an organization can enable a reassessment of the vision and grand strategy of the organization. Analyzing the execution of change allows an organization to adjust the change in a manner that reduces risks of harm that may be brought about by change. Analyzing the change can also be used to assess the success of the change as it develops across the organization.

This research study was conducted using multiple methods. Scholarly literature on the nature of change management, relevant Department of Defense and Department of Army regulations, government studies, archival data, and public law were reviewed to provide the context of AMC's and TACOM's roles and responsibilities regarding life cycle management.

Data were gathered using interviews of staff representatives from ACC-WRN, TACOM, TARDEC, Program Executive Office Combat Support & Combat Service Support (PEO CS&CSS) and Program Executive Office Ground Combat Systems (PEO GCS) to assess the

impacts of the changes brought on by implementation of the OPORD. Interviews focused on the McKinsey "7-S" Model of analyzing change.

Chapter 1: Introduction

The scope of this research paper is to examine the correlation between the AMC Commanders' strategic intent expressed in the AMC OPORD with the corresponding changes enacted within the TACOM LCMC community. On February 17, 2016, the Commanding General (CG) of AMC issued OPORD 16-189 (Army Materiel Command, 2016) to realign the organization and reporting structure of several subordinate commands within AMC. The realignment placed the affected subordinate organizations under the direct control of AMC's three LCMCs and Army Sustainment Command (ASC). This research will specifically focus on the OPORD's impact at TACOM, ACC-WRN, and TARDEC rather than the entire community of commands under AMC.

Background

Goldwater-Nichols Act and the Foundation of Modern Acquisition Communities.

A comprehensive understanding of the nature and impact of the AMC OPORD cannot be understood without some discussion of the history and the structure of the DoD and DA acquisition communities. AMC was established on May 8, 1962 under the authority of the Defense Reorganization Act of 1958. Although there were numerous changes in acquisition that impacted both DA and AMC after 1958, it was the Goldwater-Nichols Department of Defense Reorganization Act of 1986, Public Law 99-433 (Goldwater-Nichols Act) that created modern acquisition structures and responsibilities for all of the acquisition communities within DoD, and it significantly changed the basic structure of DA and AMC (AMC History Office, 2017). The 99th Congress passed the Goldwater-Nichols Act, to take effect on 1 October, 1986. The purpose of the Goldwater-Nichols Act was:

To reorganize the Department of Defense and strengthen civilian authority in the Department of Defense, to improve the military advice provided to the President, the National Security Council, and the Secretary of Defense, to place clear responsibility on the commanders of the unified and specified combatant commands for the accomplishment of missions assigned to those commands and ensure that the authority of those commanders is fully commensurate with that responsibility, to increase attention to the formulation of strategy and to contingency planning, to provide for more efficient use of defense resources(emphasis added), to improve joint officer management policies, otherwise to enhance the effectiveness of military operations and improve the management and administration of the Department of Defense, and for other purposes (Goldwater-Nichols Act of 1986)"

The Goldwater-Nichols Act is incorporated in Title 10 'Armed Forces' of the United States Code (aka Title 10 and also 10 USC). Additional public laws, most notably various National Defense Authorization Acts, have added to the body of law in Title 10 of the U.S. Code that establishes the relationships and functions of the DoD and DA acquisition communities.

The Goldwater-Nichols Act is primarily known for its mandates to change the way the Service Chiefs and Combatant Commanders maintain control of operational forces, and to create a collaborative, i.e. joint, environment amongst the services. However, the Goldwater-Nichols Act also significantly changed the acquisition process by increasing the role of DoD in the acquisition process of all the Services with the intent to reduce inter-service rivalries in procurement. The Goldwater-Nichols Act created the office of the Under Secretary of Defense for Acquisition. This office was renamed to the Under Secretary of Defense for Acquisition Technology and Logistics, which in turn will be changed in accordance with National Defense Authorization Act (NDAA) Fiscal Year (FY) 17. In anticipation of the Goldwater-Nichols Act, President Reagan issued National Security Decision Directive 219 (aka NSDD 219). As it related to acquisition, NSDD 219 created offices of the Defense and Service Acquisition Executive to be dual hatted as the future Under Secretary of Defense for Acquisition, and for the Under

Secretary to create what would become the first DoD Instruction 5000 to standardize acquisition across DoD and the Services. NSDD 219 placed PEOs under the control of Services Acquisition Executives and required that program offices be established that directly reported to PEOs. The specific intent of this structural change was to ensure a short span of control from the Service Acquisition Executive to her Program Managers (Reagan, 1986). Another structural consequence of NSDD 219 and the Goldwater-Nichols Act was that procurement and logistics functions began to become stove piped; procurement in the PEO chain of command and logistics with the Service Chiefs of Staff.

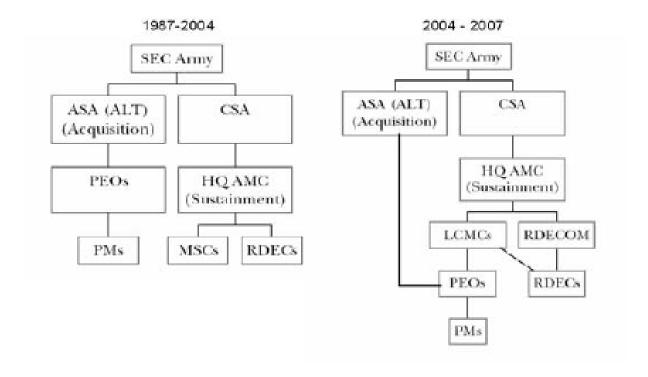


Figure 1 - Army Acquisition 1986-2004 and 2004-2007

In 1988 the Army Program Executive Offices (PEOs) and their subordinate Program Managers (PMs) were moved out of the CSA/AMC structure into the ASA(ALT)/Army

Acquisition Executive command structure. This separation between the PEOs and AMC continues today, although for a period of time between 2004 and 3007 the PEOs were included in the AMC command structure. AMC continued to provide matrix support to PEOs and their program managers regardless of the inclusion of PEOs in the AMC command structure (AMC History Office, 2017).

Creation of the LCMC Concept.

By 2004, the highest levels of the Army recognized that the separation of procurement and logistics into separate chains of command had become a serious issue. The ASA(ALT), Mr. Claude Bolton, and the CSA, General Paul Kern, signed a Memorandum of Agreement creating the LCMCs (Bolton & Kern, 2004). The intent of the agreement was to synchronize the Army's procurement function with its logistics function. The LCMCs became "the focal point and primary responsible agent for actions across the entire life cycle of the entire groupings of systems assigned to the LCMC. The LCMC Commander also has an operational relationship with the RDECOM Research Development and Engineering Centers (RDECs) associated with his/her LCMC for technology/engineering issues that affect the LCMC assigned systems (Bolton & Kern, 2004)." The PEOs were dual hatted to be the Deputy Commanders of the LCMC commands, and the military deputy to the Army Acquisition Executive (AAE) was to be dual hatted as the AMC deputy commander. The Research Development and Engineering Command (RDECOM) was to remain aligned with the LCMCs, although the LCMC Commanders had no authority over the RDECOM aligned Research Development and Engineering Centers.

This organizational construct did not last. By 2008, the PEOs were no longer included in the chain of command of the LCMC Commanders. Synergies from the LCMC concept may

have been lost. However, within the TACOM LCMC community, the TACOM LCMC Playbook was created to maintain informally those command relationships that had existed when the PEOs were dual hatted in the LCMC organizations. Without the formal command relationships, the commands that comprised the LCMC communities could no longer be required to collaborate with each other. "By instituting this playbook, associates had a clear and concise explanation of the LCMC concept and how they and their organizations played a critical role in its success (Lenaers, 2008)." The TACOM LCMC Playbook provide an avenue of communication between the commands at the Detroit Arsenal that facilitated the cooperation and collaboration that was intended in the Bolton-Kerns agreement.

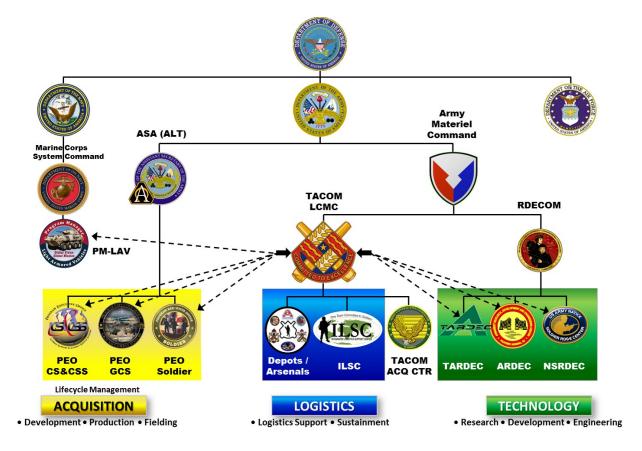


Figure 2 - TACOM LCMC Chains of Command, 2004-2007

The Current Command Structure of TACOM LCMC within AMC.

The simplicity of the Army acquisition processes envisioned in 1986 and 2004 can still be seen in the structures of today's acquisition community. However the command relationships are now more complex due in large part to changes in the statutes and regulations that govern the Army acquisition community. Numerous reports have been written about these changes and their success or lack thereof. Most reports indicate that the results of these changes have been at best mixed, although there have been some successful reform efforts (Schwartz, 2013). A brief review of changes instituted inside ASA(ALT) and AMC identify a significant array of changes. Starting in 2008 with the ASA(ALT)'s creation of the Army Contracting Command and aligning it under AMC, ASA (ALT) also changed and consolidated the delegation of the Head of Contracting Authority in 2008, 2013, 2014 and 2015. Between 2007 and 2016, the Secretary of the Army and the AMC CG changed the reporting relationships of the Principle Agents Responsible for Contracting (PARCs). Congress legislated significant changes regarding the roles and responsibilities of the CSA in acquisition decision making in NDAA 2016 section 802, and most recently Congress altered the composition of the Under Secretary of Defense for Acquisition Technology and Logistics in NDAA 2017 section 901 by devolving the office into two new and separate Under Secretary offices. Collectively all of these changes have or will influence the makeup of the current organization chart of AMC and its subordinate command TACOM.

The intent of the OPORD was to realign the missions of AMC commands with an ultimate goal of improving readiness of the operational forces of the Army. The exact language of this intent is stated in the OPORD:

"Commander's Intent. As the Army continues to evolve, my intent is to posture AMC to ensure that we provide readiness to the future force while continuing to

take care of the soldiers of today and in the future. AMC will align mission command toward three portfolio-based organizations empowered to provide sustainable readiness in aviation and missiles, communications and electronics, and tank and automotive. AMC will achieve a command-wide synchronized and integrated effort across the entire materiel acquisition life cycle, and provide a framework for future change to increase AMC's continued ability to shape and influence acquisition policy, procedures, and materiel solutions to meet Warfighter needs and enhance readiness today and for the future force (Army Materiel Command, 2016).

The AMC OPORD changed several subordinate chains of command within the AMC command. Figure 3 represents the TACOM chain of command subsequent to the OPORD. The OPORD has changed the reporting relationships between LCMC Commanders, Army Contracting Command regional contracting centers, and RDECs, and it changed the relationship between ASC and several Contract Support Brigades (Army Materiel Command, 2016). The OPORD did not directly impact the ASA(ALT) organizations because those organizations were removed from the AMC chain of command by 2008 (Hitchcock, 2009), (Lenaers, 2008).

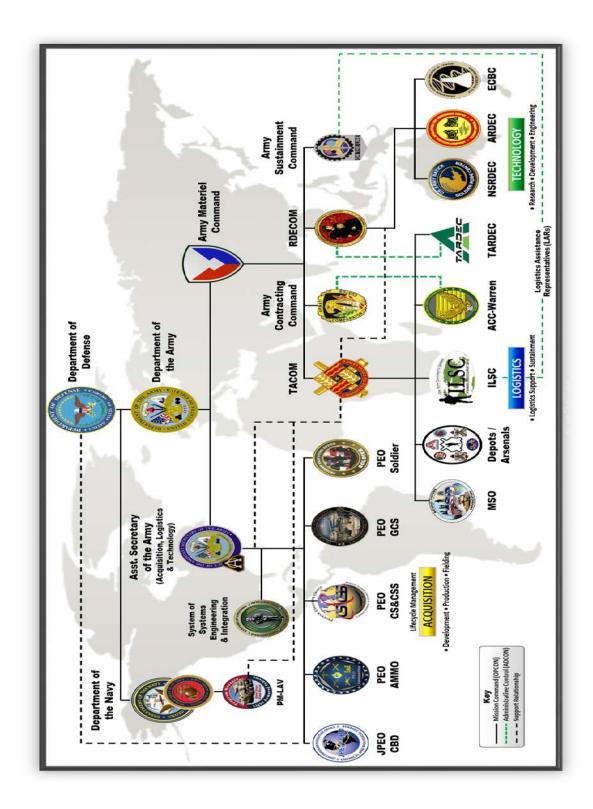


Figure 3 - TACOM and AMC Command Relationships Post OPORD 16-189

Thesis Paper Problem Statement

In February 2016, AMC realigned several of its subordinate commands via OPORD 16-189. The OPORD identified the situation:

The Army Materiel Command (AMC), as a global logistics command, provides Army materiel readiness and support to Unified Land Operations and responds to the needs of today's Warfighters, while anticipating future requirements and providing advanced equipment and materiel solutions to ensure our Army remains the most dominant land power force in the world. As a key stakeholder in every phase of the materiel development life cycle, AMC currently needs to improve mission command alignment to realize a more fully synchronized and integrated process that effectively manages and leverages each of the individual efforts performed by AMC elements across that life cycle. This organizational alignment and a more synchronized process is critical to fully support the current Chief of Staff, Army (CSA) efforts in acquisition reform (Army Materiel Command, 2016).

The DoD and DA acquisition communities have changed numerous time since the Goldwater-Nichols Act. The realignment intended by the OPORD placed these subordinate commands under various forms of control of the LCMC Commanders (AMCOM, CECOM, TACOM, and ASC). Several stakeholders of AMC and TACOM have questioned if this AMC mission realignment is consistent with the previous changes in the acquisition communities. If so, how has it differed from previous changes? How successful has the change at TACOM LCMC been in achieving the OPORD's strategy of mission alignment?

Purpose of the Study

The purpose of this study is to identify the impact of changes that have been made to the organizational characteristics of TACOM, ACC-WRN and TARDEC to achieve the intent of the OPORD. By using the McKinsey 7-S Model, the nature of the changes may be assessed. This may help the stakeholders of the TACOM LCMC community better understand their interrelated activities and how to help TACOM further align itself in accordance with the OPORD.

Overview of Research Methodology

This study employs a mixed method research methodology. Qualitative data were gathered from a focus group of civilian employees at the Detroit Arsenal. Preliminary consultation with staff members of ACC-WRN, PEO GCS and TACOM identified divisions in organizations that were most likely to be affected by implementation of the OPORD. Leaders in these divisions were consulted to identify employees who were or had been tasked to support OPORD related matters. Specific employees were then identified to participate in a focus group. The organizations represented by the focus group were: ACC-WRN, PEO CS&CSS, PEO GCS, TACOM and TARDEC. The data were collected using a survey instrument, and the instrument was used to conduct personal interviews of the focus group. The questions used in the survey instrument were based on the McKinsey 7-S Model. The survey instrument is in Appendix B of this study. Participants were asked the same initial questions, and follow up questions were used to obtain more detail. Exploratory research was used to identify previous changes in the DoD and DA acquisition communities. Exploratory research was also used to identify relevant regulatory and policy guidance that has affected the acquisition communities in the past and which may be relevant to executing the OPORD now. The exploratory research was used to help identify limits on TACOM authority to execute any portion of the OPORD, as well as to identify areas of overlap between ASA(ALT) and AMC authorities that may be cause for confusion or discord among TACOM LCMC stakeholders.

Chapter 2: Literature Review

Introduction

This chapter will identify and discuss two categories of information. The first category is change management and several contemporary theories that describe change management. The foundational change management theory used in this paper is Alfred Chandler's concept that structure follows strategy (Chandler, 1962). Chandler's theory has been expanded upon by numerous individuals. This paper will use the theories of McKinsey (Pascale & Athos, The Art of Japanese Management, 1981), Kotter (Kotter, 2012), Lewin (Scherer, Alban, & Weisbord, 2016) and Beer (Beer M., Organizational Change and Development: A Systems View, 1980) to further explore the concepts of change management. The second category of information is the sources of authority under which AMC and TACOM operate. Unlike AMC's and TACOM's organizational counterparts in commercial industry, these military commands exist only to carry out their organizational missions consistent with their statutory and regulatory authorities. The fundamental authorities that are relevant to both AMC's mission and the OPORD are also identified and discussed in this chapter.

Contemporary Theories of Change Management

Change management is not a fundamentally new concept. Heraclitus was a Greek philosopher in approximately 500 B.C. He is commonly attributed with the phrase "change is constant," although that is not an exact quote from his identifiable works (Wikiquotes, 2017). From this concept that change is always happening intuitively arises the desire to control change, i.e. change management. Various definitions of change management exist. For purposes of this paper, change management is the effort(s) an organization takes to adapt to a change in the environment in which the organization exists.

One of the earliest modern theorists to analyze the concept of organizational change was Kurt Lewin, a naturalized German citizen and professional psychologist using applied research. His contributions to the world of change management include: a change management concept of "unfreeze-change-freeze," force field analysis, and his equation for behavior, B = f(P, E)(Scherer, Alban, & Weisbord, 2016). Lewin used his equation for behavior to explain both individual and group behavior. In his equation B is the individual or group behavior, f is the function of P and E on B, P is personal factors and E is the social environment. Applying this formula to Lewin's unfreeze-change-freeze process, the formula is used to help understand psychological force fields around individuals and groups to unfreeze the status quo aka to "break the habit" (Lewin, 1947). The force fields inhibit groups from accepting change, and understanding the nature of the force fields enables a change to take place within the individual and group behaviors. In the second step of Lewin's model, a change is created whose total force exceeds the pre-existing force field that is resistant to change. The individual or group work through "phase space" in order to create change. The third step of the Lewin model occurs when the change has become permanent. "A change toward a higher level of group performance is frequently short lived; soon after a 'shot in the arm,' group life returns to the previous level. This indicates that it does not suffice to define the objective of planned change in group performance as the reaching of a different level. Permanency of the new level, or permanency for a desired period, should be included in the objective (Lewin, 1947, p 34-35)." In Lewin's concept of force fields, the permanency results from the establishment of a new force field around the individual or group that is resistant to the force of reversion back to the behaviors in place before the change process began.

The modern understanding of change management within large commercial organizations begins with Alfred DuPont Chandler. His key theory is that organizational structure follows organizational strategy. Chandler studied the history of several large U.S. companies during the early and mid-twentieth century. The companies were: Du Pont, General Motors, Standard Oil, and Sears & Roebuck. From his analysis of the histories of these companies, Chandler theorized that, "A company's strategy in time determined its structure and that the common denominator of structure and strategy has been the application of the enterprise's resources to market demand (Chandler, 1962, p. 383)." Chandler's theory posed two further considerations: why is there delay in developing structure after the strategy is identified, and why did the new strategy arise in the first place? He answers these questions by asserting, "Strategic growth result[s] from an awareness of the opportunities and needs – created by changing population, income, and technology – to employ existing or expanding resources more profitably. A new strategy required a new or at least refashioned structure if the enlarged enterprise was to be operated efficiently (Ibid, p. 15). Chandler also inferred from his general theory that a change in strategy without structural adjustment will result in economic inefficiency (Ibid, p.16).

A more current and commonly discussed change management model is the McKinsey "7-S" Framework, aka McKinsey7-S Model. McKinsey & Company is a global management and consulting group. In 1980 several of its members formally identified a change management concept that would become known as the "7-S Framework" (Pascale & Athos, The Art of Japanese Management, 1981) (Wikipedia-7S, 2017). The 7-S Model is based upon the theory that seven interrelated factors of an organization need to be affected in order of the organization to successfully change itself. These interrelated factors are: strategy, structure, systems, skills, style, staff and shared values. The seven factors are also categorized into hard and soft elements.

Hard elements are the factors that are most affected through management actions. The hard elements are: strategy, structure and systems. Soft elements are the factors that are most affected by the culture of the organization. The soft elements are: skills, style, staff and shared values (Njie, 2003), (Mind Tools, 2017). The general definitions of the elements are:

Hard Elements

- Strategy Purpose of the business and the way the organization seeks to enhance its competitive advantage.
- Structure Division of activities; integration and coordination mechanisms.
- Systems Formal procedures for measurement, reward and resource allocation.

Soft Elements

- Shared Values
- Skills The organization's core competencies and distinctive capabilities.
- Staff Organization's human resources, demographic, educational and attitudinal characteristics.
- Style Typical behavior patterns of key groups, such as managers, and other professionals.

Table 1 - Elements of the McKinsey 7-S Framework

The McKinsey 7-S Model is a commonly used tool for assessing an organization's success in institutionalizing a change, and the 7-S Model was used as the primary basis to form this analysis of the AMC OPORD. The 7-S Model assumes that an organization is more than merely its structure interacting with the universe the organization occupies. The "picture of the thing is not the thing...An organizational structure is not an organization (Peters, Phillips, & Waterman, 1980)." The 7-S elements are interdependent; a change to one will have an effect on all of the elements. To make an organization operate more efficiently, the alignment of the elements to each other must be improved.

Another model for analyzing change management was developed by John Kotter. In his book *Leading Change* (Kotter, 2012), Kotter identifies an eight stage process for successfully achieving and analyzing change management in an organization. Kotter's eight steps are:

- 1. Establishing a Sense of Urgency. "Establishing a sense of urgency is crucial to gaining needed cooperation. It is established by examining the current environment, and identifying and discussing: crisis, potential crisis, or significant opportunities (Kotter, 2012, p51)."
- 2. Creating the Guiding Coalition. "A strong guiding coalition is always neededone with the right composition, level of trust, and shared objectives (Ibid at 54)."
- 3. Developing a Vision and Strategy. It creates a clear general direction of change; simplifying the myriad of detailed decisions necessary to achieve the change. It motivates members of the organization to act consistently with the change. It helps to coordinate the actions of the members of the organization (Ibid at 71).
- 4. Communicating the Change Vision. The organization must use every means possible to constantly communicate the new vision and strategies, and the guiding coalition must role model the behavior necessitated by the change (Ibid at 23).
- 5. Empowering Employees for Broad-Based Action. Members of an organization will not be able to help achieve change if they feel powerless to do so. Leaders of change management must "empower a broad base of people to take action by removing as many barriers to the implementation of the change vision as possible (Ibid at 106)."
- 6. Generating Short-Term Wins. Maintaining a positive attitude regarding a formal change as it is implemented over time is important in achieving the end state. Short term wins along the way to achieving the end state help to maintain the positive attitudes needed to be successful, and they help to minimize the negative perception that the change is not happening fast enough or is otherwise off track (Ibid at 125-128).
- 7. Consolidating Gains and Producing More Change. "Whenever you let up before the job is done, critical momentum can be lost and regression may follow." Using the gains achieved can help create momentum to achieve the remaining waypoints on the path to the intended end state. (Ibid at 139, 150).
- 8. Anchoring New Approaches in the Culture. "The biggest impediment to creating change in a group is culture...the new practices created in a

reengineering or a restructuring or an acquisition must somehow be anchored in it; if not they can be very fragile and subject to regression (Ibid at 159, 164)."

Kotter's eight step approach offers a generic process that can be tailored to most organizations. His approach is also consistent with current mainstream understanding of change management theories as well as the theories discussed earlier in this paper.

Another commonly referenced change management approach comes from Professor Mike Beer, Professor of Business Administration, Emeritus at the Harvard Business School. Professor Beer is a consultant and scholar on leadership and organizational change. He has developed a six step process for change management as well as a formulaic model for explaining change in organizations. Beer's six step process follows. First mobilize commitment to change by means of joint diagnosis of the organization's problem. Second develop a shared vision of how to organize and manage for competitiveness. Third create and foster consensus, competence and commitment to shared vision. Foster consensus for the vision, competence to enact it, and cohesion to move it along. Fourth inform change to members and stakeholders of the organization. Spread revitalization (aka change) to all departments without pushing it from the top. Fifth create formal policies to institutionalize change. Institute revitalization through formal policies, systems and structures. Sixth monitor and adjust change if necessary. Monitor and adjust strategies in response to problems in the process.

Professor Beer's six step process focuses on task alignment of employees roles responsibilities and relationships to the organization in order to most effectively bring about change (U.K. Essays, 2017), (Beer, Eisenstat, & Spector, 1993). Professor Beer explains the likelihood of success in his formula C = D*M*P > R (Beer M., Organizational Change and Development: A Systems View, 1980). Professor Beer has explained his model in the following manner. C is the amount of Change achieved. D is Dissatisfaction with the status quo, and a

leader uses this Dissatisfaction to provide the energy for the Change. M is the strategic and organizational Model of change. P is the Process of employee and leadership engagement that identifies: barriers to Change, Dissatisfaction with the status quo, and ultimately informs the creation of the Model. R is the organization's Resistance to Change also described as the cost of Change in terms of human and capital values (Beer M., Q&A with Michael Beer, 2007).

Sources of Authority for AMC and TACOM.

AMC is a military command within DA, and both organizations are in turn under the DoD. The DoD is an organization within the Executive Branch of government. The Executive Branch of the federal government gets its authority from Article II of the U.S. Constitution and the laws passed by the U.S. Congress. The specific authorities identified in this paper include various laws passed by Congress and codified in the U.S. Code, Department of Army Regulations, memorandum between various organizations with the Army, and orders issued by Commanding Officers exercising the discretionary use of their authority over subordinate commands.

The scope of this research paper is to examine the correlation between the AMC Commanders' strategic intent expressed in the AMC OPORD with the corresponding changes enacted within the TACOM LCMC community. On February 17, 2016, the Commanding General CG of AMC OPORD 16-189 (Army Materiel Command, 2016) to realign the organization and reporting structure of several subordinate commands within AMC. The realignment placed the affected subordinate organizations under the direct control of AMC's three LCMCs and Army Sustainment Command (ASC).

A comprehensive understanding of the nature and impact of the AMC OPORD requires a review of the rules structuring and empowering the DoD and DA acquisition communities. The modern statutory history of the DoD and Army acquisition structures begins with the Goldwater-

Nichols Act of 1986. The Goldwater-Nichols Act was codified into various chapters of Title 10 'Armed Forces' of the United States Code (aka 10 USC). Additional public laws, most notably various NDAAs, have added to the body of law in 10 USC that establishes the relationships and functions of the DoD and DA acquisition communities. The 99th Congress passed the Goldwater-Nichols Department of Defense Reorganization Act of 1986, Public Law 99-433 (Goldwater-Nichols Act), to take effect on October 1, 1986. The purpose of the Goldwater-Nichols Act was:

To reorganize the Department of Defense and strengthen civilian authority in the Department of Defense, to improve the military advice provided to the President, the National Security Council, and the Secretary of Defense, to place clear responsibility on the commanders of the unified and specified combatant commands for the accomplishment of missions assigned to those commands and ensure that the authority of those commanders is fully commensurate with that responsibility, to increase attention to the formulation of strategy and to contingency planning, to provide for more efficient use of defense resources(emphasis added), to improve joint officer management policies, otherwise to enhance the effectiveness of military operations and improve the management and administration of the Department of Defense, and for other purposes (Goldwater-Nichols Act of 1986)"

Much of the codified sections of the Goldwater-Nichols Act have been updated since 1986.

Goldwater-Nichols Act, Title 10 of the U.S. Code, and DoD Acquisition

Section 104 of the Goldwater-Nichols Act is relevant to the acquisition mission and acquisition structure of DoD, and it established an Undersecretary of Defense for Acquisition codified at 10 USC 133. Amendments to the Goldwater-Nichols Act made via public law have changed the name and mission of this office to the Under Secretary of Defense for Acquisition to 'Under Secretary for Acquisition, Technology, and Logistics.' 10 USC 133 currently states:

"(a) There is an Under Secretary of Defense for Acquisition, Technology, and Logistics, appointed from civilian life by the President, by and with the advice

- and consent of the Senate. The Under Secretary shall be appointed from among persons who have an extensive management background.
- (b) Subject to the authority, direction, and control of the Secretary of Defense, the Under Secretary of Defense for Acquisition, Technology, and Logistics shall perform such duties and exercise such powers relating to acquisition as the Secretary of Defense may prescribe, including-
- (b)(1) supervising Department of Defense acquisition;
- (b)(2) establishing policies for acquisition (including procurement of goods and services, research and development, developmental testing, and contract administration) for all elements of the Department of Defense;
- (b)(3) establishing policies for logistics, maintenance, and sustainment support for all elements of the Department of Defense;
- (b)(4) establishing policies of the Department of Defense for maintenance of the defense industrial base of the United States; and
- (b)(5) the authority to direct the Secretaries of the military departments and the heads of all other elements of the Department of Defense with regard to matters for which the Under Secretary has responsibility, except that the Under Secretary shall exercise advisory authority, subject to the authority, direction, and control of the Secretary of Defense, over service acquisition programs for which the service acquisition executive is the milestone decision authority.
- (c) The Under Secretary—
- (c)(1) is the senior procurement executive for the Department of Defense for the purposes of section 1702(c) of title 41;
- (c)(2) is the Defense Acquisition Executive for purposes of regulations and procedures of the Department providing for a Defense Acquisition Executive; and (c)(3) to the extent directed by the Secretary, exercises overall supervision of all personnel (civilian and military) in the Office of the Secretary of Defense with regard to matters for which the Under Secretary has responsibility, unless otherwise provided by law.

(d)

- (d)(1) The Under Secretary shall prescribe policies to ensure that audit and oversight of contractor activities are coordinated and carried out in a manner to prevent duplication by different elements of the Department. Such policies shall provide for coordination of the annual plans developed by each such element for the conduct of audit and oversight functions within each contracting activity.

 (d)(2) In carrying out this subsection, the Under Secretary shall consult with the Inspector General of the Department of Defense.
- (d)(3) Nothing in this subsection shall affect the authority of the Inspector General of the Department of Defense to establish audit policy for the Department of Defense under the Inspector General Act of 1978 and otherwise to carry out the functions of the Inspector General under that Act.

(e)

(e)(1) With regard to all matters for which he has responsibility by law or by direction of the Secretary of Defense, the Under Secretary of Defense for Acquisition, Technology, and Logistics takes precedence in the Department of Defense after the Secretary of Defense and the Deputy Secretary of Defense.

(e)(2) With regard to all matters other than matters for which he has responsibility by law or by direction of the Secretary of Defense, the Under Secretary takes precedence in the Department of Defense after the Secretary of Defense, the Deputy Secretary of Defense, and the Secretaries of the military departments. (10 USC 133)."

The Goldwater-Nichols Act was most recently amended by the NDAA FY17 (S.2943, 2017). Section 901 of NDAA FY17 devolves the Under Secretary of Defense for Acquisition, Logistics and Technology into two offices. Those offices are the Under Secretary for Acquisition and Sustainment and the Undersecretary for Research and Engineering. The codification of this change will be at 10 USC 133a and 133b. The specific language of the forthcoming changes are located in section 901 of NDAA FY17 which reads:

- "Sec. 133a. Under Secretary of Defense for Research and Engineering (a) Under Secretary of Defense.--There is an Under Secretary of Defense for Research and Engineering, appointed from civilian life by the President, by and with the advice and consent of the Senate... b) Duties and Powers.--Subject to the authority, direction, and control of the Secretary of Defense, the Under Secretary shall perform such duties and exercise such powers as the Secretary may prescribe, including--
- (1) serving as the chief technology officer of the Department of Defense with the mission of advancing technology and innovation for the armed forces (and the Department);
- (2) establishing policies on, and supervising, all defense research and engineering, technology development, technology transition, prototyping, experimentation, and developmental testing activities and programs, including the allocation of resources for defense research and engineering, and unifying defense research and engineering efforts across the Department; and
- (3) serving as the principal advisor to the Secretary on all research, engineering, and technology development activities and programs in the Department (S.2943, 2017)."

Section 901 of NDAA FY17 also creates section 10 USC 133b which reads in part:

"Sec. 133b. Under Secretary of Defense for Acquisition and Sustainment (a) Under Secretary of Defense.--There is an Under Secretary of

Defense for Acquisition and Sustainment, appointed from civilian life by the President, by and with the advice and consent of the Senate. The Under Secretary shall be appointed from among persons who have an extensive system development, engineering, production, or management background and experience with managing complex programs. A person may not be appointed as Under Secretary within seven years after relief from active duty as a commissioned officer of a regular component of an armed force.

- (b) Duties and Powers.--Subject to the authority, direction, and control of the Secretary of Defense, the Under Secretary shall perform such duties and exercise such powers as the Secretary may prescribe, including--
- (1) serving as the chief acquisition and sustainment officer of the Department of Defense with the mission of delivering and sustaining timely, cost-effective capabilities for the armed forces (and the Department);
- (2) establishing policies on, and supervising, all elements of the Department relating to acquisition (including system design, development, and production, and procurement of goods and services) and sustainment (including logistics, maintenance, and materiel readiness);
- (3) establishing policies for access to, and maintenance of, the defense industrial base and materials critical to national security, and policies on contract administration;
- (4) serving as--
- (A) the principal advisor to the Secretary on acquisition and sustainment in the Department;
- (B) the senior procurement executive for the Department for the purposes of section 1702(c) of title 41; and
- (C) the Defense Acquisition Executive for purposes of regulations and procedures of the Department providing for a Defense Acquisition Executive;
- (5) overseeing the modernization of nuclear forces and the development of capabilities to counter weapons of mass destruction, and serving as the chairman of the Nuclear Weapons Council and the co-chairman of the Council on Oversight of the National Leadership Command, Control, and Communications System;
- (6) the authority to direct the Secretaries of the military departments and the heads of all other elements of the Department with regard to matters for which the Under Secretary has responsibility, except that the Under Secretary shall exercise supervisory authority over service acquisition programs for which the service acquisition executive is the milestone decision authority; and
- (7) to the extent directed by the Secretary, exercising overall supervision of all personnel (civilian and military) in the

Office of the Secretary of Defense with regard to matters for which the Under Secretary has responsibility, unless otherwise provided by law (S.2943, 2017)."

DoD has not yet instituted the changes of section 901 of NDAA FY17. The current command relationship between the DoD and the DA acquisition communities follows the statutes in effect and in section 861(a) of the NDAA FY11. This relationship is codified at 10 USC 2546, labeled 'Civilian management of the defense acquisition system':

"(a)Responsibility of the Under Secretary of Defense for Acquisition, Technology, and Logistics.—

Subject to the authority, direction and control of the Secretary of Defense, the Under Secretary of Defense for Acquisition, Technology, and Logistics shall be responsible for the management of the defense acquisition system and shall exercise such control of the system and perform such duties as are necessary to ensure the successful and efficient operation of the defense acquisition system, including the duties enumerated and assigned to the Under Secretary elsewhere in this title.

(b)Responsibility of the Service Acquisition Executives.—
Subject to the direction of the Under Secretary of Defense for Acquisition,
Technology, and Logistics on matters pertaining to acquisition, and subject to the
authority, direction, and control of the Secretary of the military department
concerned, a service acquisition executive of a military department shall be
responsible for the management of elements of the defense acquisition system in
that military department and shall exercise such control of the system and perform
such duties as are necessary to ensure the successful and efficient operation of
such elements of the defense acquisition system (10 USC 2546)."

As 10 USC 133a and 10 USC 133b are implemented, the structure of the DoD acquisition community will change. Because 10 USC 2546(b), and the forthcoming 10 USC 133b (b)(6), maintains DoD authority to exercise authority over the Secretaries of the military Services and the Service Acquisition Executives, the DA acquisition community will remain subordinate to DoD in acquisition matters.

Goldwater-Nichols Act, Title 10 of the U.S. Code, and DA Acquisition.

There is a direct corollary between the foundation of the modern DoD acquisition community and the foundation of the modern DA acquisition community. The structural relationships between these communities are complex, symbiotic, and, as articulated in 10 USC 2546(b), the DoD community was clearly meant to be dominant in these relationships. As with the DoD acquisition community, the foundation of the Army acquisition community also stems from the Goldwater-Nichols Act.

The Goldwater-Nichols Act organized the Army under two primary organizations and corresponding senior leaders, the Secretary of the Army and the CSA. Section 501 of the Goldwater-Nichols Act established: the Offices of Secretary of the Army (codified at 10 USC 3013), the Office of the Secretary of the Army (codified at 10 USC 3014), the Under Secretaries of the Army (codified at 10 USC 3015) and the Assistant Secretaries of the Army (codified at 10 USC 3016), (Goldwater-Nichols Act of 1986). Section 502 of the Goldwater-Nichols Act established: the Office of the Army Staff led by the CSA (codified at 10 USC 3031 and 10 USC 3032), the functions of the CSA (codified at 10 USC 3033), and the Vice, Deputy, and Assistant Chiefs of Staff (codified at 10 USC 3034 and 10 USC 3035). Section 503 of the Goldwater-Nichols Act specifically provides the Secretary of the Army with the authority to organize the Army into commands, forces, and organizations rather than the CSA (10 USC 3074(a)). The Secretary's authority and discretion to organize the Army includes the Office of the Army Staff (aka HQ DA) of the CSA, "Except as otherwise specifically prescribed by law, the Army Staff shall be organized in such manner, and its members shall perform such duties and have such titles, as the Secretary may prescribe (10 USC 3031(c))." The language of 10 USC 3031(c) and

10 USC 3074(a) is nearly identical, and the language from both of these sections of the US Code derive from the Goldwater-Nichols Act.

Despite the superiority of the Secretary of the Army over the CSA, both offices have separate albeit similar and overlapping functions. The Goldwater-Nichols Act established specific acquisition positions in both the Secretary of the Army's office and the CSA's office. The structure and mission of these acquisition functions are codified at: 10 USC 3014 and 10 USC 3016 (Secretary of the Army), and 10 USC 3031, 10 USC 3032 and 10 USC 3033 (Chief of Staff of the Army).

- "10 USC 3014 Office of the Secretary of the Army
- (a) There is in the Department of the Army an Office of the Secretary of the Army. The function of the Office is to assist the Secretary of the Army in carrying out his responsibilities.
- (b) The Office of the Secretary of the Army is composed of the following:
- (1) The Under Secretary of the Army.
- (2) The Assistant Secretaries of the Army.
- (c) (1) The Office of the Secretary of the Army shall have sole responsibility within the Office of the Secretary and the Army Staff for the following functions:
- (A) Acquisition.
- (B) Auditing.
- (C) Comptroller (including financial management).
- (c)(2) The Secretary of the Army shall establish or designate a single office or other entity within the Office of the Secretary of the Army to conduct each function specified in paragraph (1). No office or other entity may be established or designated within the Army Staff to conduct any of the functions specified in paragraph (1).
- (c)(3) The Secretary shall prescribe the relationship of each office or other entity established or designated under paragraph (2) to the Chief of Staff and to the Army Staff and shall ensure that each such office or entity provides the Chief of Staff such staff support as the Chief of Staff considers necessary to perform his duties and responsibilities.
- (c)(4) The vesting in the Office of the Secretary of the Army of the responsibility for the conduct of a function specified in paragraph (1) does not preclude other elements of the executive part of the Department of the Army (including the Army Staff) from providing advice or assistance to the Chief of Staff or otherwise participating in that function within the executive part of the Department under the direction of the office assigned responsibility for that function in the Office of the Secretary of the Army.

- (d)(1) Subject to paragraph (2), the Office of the Secretary of the Army shall have sole responsibility within the Office of the Secretary and the Army Staff for the function of research and development.
- (d)(2) The Secretary of the Army may assign to the Army Staff responsibility for those aspects of the function of research and development that relate to military requirements and test and evaluation.
- (d)(3) The Secretary shall establish or designate a single office or other entity within the Office of the Secretary of the Army to conduct the function specified in paragraph (1).
- (d)(4) The Secretary shall prescribe the relationship of the office or other entity established or designated under paragraph (3) to the Chief of Staff of the Army and to the Army Staff and shall ensure that each such office or entity provides the Chief of Staff such staff support as the Chief of Staff considers necessary to perform his duties and responsibilities.
- (e) The Secretary of the Army shall ensure that the Office of the Secretary of the Army and the Army Staff do not duplicate specific functions for which the Secretary has assigned responsibility to the other (10 USC 3014)."

10 USC 3014(c)(1) states that the Secretary of the Army shall have sole responsibility for acquisition functions. As noted in 10 USC 3014(b)(2), there are specific Assistant Secretaries of the Army that are part of the Office of the Secretary of the Army. 10 USC 3016 describes the duties of the Assistant Secretaries of the Army. The relevant 10 USC 3016 language regarding the Assistant Secretary of the Army for Acquisition, Logistics and Technology is:

- "(a) There are five Assistant Secretaries of the Army. They shall be appointed from civilian life by the President, by and with the advice and consent of the Senate.
- (a)(1) The Assistant Secretaries shall perform such duties and exercise such powers as the Secretary of the Army may prescribe.
- (a)(5) (A) One of the Assistant Secretaries shall be the Assistant Secretary of the Army for Acquisition, Technology, and Logistics. The principal duty of the Assistant Secretary shall be the overall supervision of acquisition, technology, and logistics matters of the Department of the Army.
- (a)(5)(B) The Assistant Secretary shall have a Principal Military Deputy, who shall be a lieutenant general of the Army on active duty. The Principal Military Deputy shall be appointed from among officers who have significant experience in the areas of acquisition and program management. The position of Principal Military Deputy shall be designated as a critical acquisition position under section 1733 of this title (10 USC 3016)."

Despite the language of 10 USC 3014(c)(1) and the statutory creation the Assistant

Secretary of the Army for Acquisition, Logistics and Technology in 10 USC 3016, Title 10 of
the US Code is clear that there is both a separation and a relationship between the organizations
of the Secretary of the Army and the CSA. 10 USC 3031 is the foundational statute for the CSA
and the Army Staff, and it states, "There is in the executive part of the Department of the Army
an Army Staff. The function of the Army Staff is to assist the Secretary of the Army in carrying
out his responsibilities (10 USC 3031(a)." 10 USC 3033 describes the responsibilities of the
CSA, with paragraph (e) underscoring the civilian control of the military by stating
unambiguously that the CSA is subordinate to the Secretary of the Army. The portions of 10
USC 3033 that are relevant to acquisition and civilian control of the Army are:

"10 USC 3033. Chief of Staff

- (a)(1) There is a Chief of Staff of the Army, appointed for a period of four years by the President, by and with the advice and consent of the Senate, from the general officers of the Army. He serves at the pleasure of the President. In time of war or during a national emergency declared by Congress, he may be reappointed for a term of not more than four years.
- (c) Except as otherwise prescribed by law and subject to section 3013(f) of this title, the Chief of Staff performs his duties under the authority, direction, and control of the Secretary of the Army and is directly responsible to the Secretary.
- (d) Subject to the authority, direction, and control of the Secretary of the Army, the Chief of Staff shall-
- (1) preside over the Army Staff;
- (2) transmit the plans and recommendations of the Army Staff to the Secretary and advise the Secretary with regard to such plans and recommendations;
- (3) after approval of the plans or recommendations of the Army Staff by the Secretary, act as the agent of the Secretary in carrying them into effect;
- (4) exercise supervision, consistent with the authority assigned to commanders of unified or specified combatant commands under chapter 6 of this title, over such of the members and organizations of the Army as the Secretary determines;
- (5) perform the duties prescribed for him by sections 171 and 2547 of this title and other provisions of law; and
- (6) perform such other military duties, not otherwise assigned by law, as are assigned to him by the President, the Secretary of Defense, or the Secretary of the Army.

(e)(1) The Chief of Staff shall also perform the duties prescribed for him as a member of the Joint Chiefs of Staff under section 151 of this title (10 USC 3033)."

10 USC 3032 broadly states the general duties of the Army Staff, of which the following sections are acquisition related:

- "(a) The Army Staff shall furnish professional assistance to the Secretary, the Under Secretary, and the Assistant Secretaries of the Army and to the Chief of Staff of the Army.
- **(b)** Under the authority, direction, and control of the Secretary of the Army, the Army Staff shall—
- (b)(1) subject to subsections (c) and (d) of section 3014 of this title, prepare for such employment of the Army, and for such recruiting, organizing, supplying, equipping (including those aspects of research and development assigned by the Secretary of the Army), training, servicing, mobilizing, demobilizing, administering, and maintaining of the Army, as will assist in the execution of any power, duty, or function of the Secretary or the Chief of Staff (10 USC 3032).:

The statutory authorities of the Secretary of the Army and the CSA are similar in nature. The NDAAs of 2016 and 2017 in particular seem to give new authority to the CSA which could appear to be at the expense of the authority of the Secretary of the Army. However that would be an overly narrow understanding of the relevant statutes. The authorities should be read and understood in a manner that makes the authorities complimentary to each other rather than in conflict with each other. Sections 502 and 503 of the Goldwater-Nichols Act, specifically the paragraphs codified at 10 USC 3013(b), 10 USC 3031(c) and 10 USC 3074(a), establish that the Secretary of the Army is ultimately responsible for the Department of the Army, its personnel, and its missions.

DA Regulations and the AMC OPORD.

Notwithstanding the fact that the Secretary of the Army has ultimate decision making on behalf of the Department of the Army for acquisition matters, the CSA also has acquisition authorities which have been detailed above. The CSA applies much of his responsibilities for acquisition matters through AMC. The Army Regulation 10-87 (AR 10-87) is the foundational regulation that describes the mission of AMC in terms of acquisition responsibilities.

The Secretary of the Army, with the concurrence of the CSA, delegated significant acquisition responsibilities of the CSA to AMC in Army Regulation 10-87 (AR 10-87). The current version of AR 10-87 was published on September 4, 2007. It had previously been updated on October 30, 1992.

The general purpose of AR 10-87, addressing AMC and twenty- two other Army organizations lead by senior leaders, is to: define and align the responsibilities of these Army organizations for executing policy and operations; recognize the Army-wide role and multidiscipline functions of the organizations; and to identify the organizations' primary missions, functions, and command and staff relationships as they relate to higher and collateral headquarters and agencies. AR 10-87 supplements the mission statement of the organizations, and it reiterates that any issues of shared administrative control that might arise between various Army commands and organizations, including AMC, should be documented in appropriate agreements between those organizations (AR 10-87, 2007).

AR 10-87 frames the mission of AMC as the provider of superior technology, acquisition support and logistics to ensure dominant land force capability for Soldiers, and the United States and its allies. Through AR 10-87 the Secretary of the Army designated AMC to carry out certain functions pursuant to 10 USC 3013(b). It identifies these functions as:

"AMC equips and sustains the Army. AMC is the Army's logistics integrator. AMC manages the Army's logistics mobilization and contingency capability and capacity and maintains and stores a prescribed level of war reserve stocks. AMC provides integrated materiel life cycle management of systems and equipment in partnership with Program Executive Offices (PEOs) and program/project/product managers. AMC demonstrates advanced technologies leading to new and improved operational capabilities and facilitates technology transition and integration into current capabilities. AMC is the National level sustainment maintenance process owner. AMC plans contingency contracting operations at the strategic and operational level and provides command and control of the contingency contracting mission. AMC provides equipment and services to other nations through the security assistance program. AMC manages and executes the Army's Logistics Civilian Augmentation Program (AR 10-87, 2007)."

AR 10-87 also describes the command relationships that AMC shall have with the other organizations in DoD, DA, and other federal agencies outside of DoD. It states that AMC reports to the CSA on all matters related to administrative control of the CSA, and it authorizes AMC to coordinate directly with all DA organizations, DOD headquarters and agencies, and other Government departments, as required, subject to procedures established by the CSA. AR 10-87 states that AMC reports to the Secretary of the Army for the execution of responsibilities authorized by 10 USC 3013(b) rather than the CSA. In this regard, AR 10-87 directs AMC to self-regulate Army responsibilities for life cycle management support to PEOs via a memorandum of understanding between PEOs and AMC. It also directs AMC to self-regulate responsibilities for sustainment level maintenance integration by memorandum of understanding with the affected organizations. Finally AR 10-87 instructs AMC that AMC has the authority to maintain partnerships with industry, academia, other Government agencies, and national and international entities for the purposes of coordinating and exchanging information and requirements (AR 10-87, 2007).

The AMC CG issued OPORD 16-189 within the context of the laws and regulations discussed previously. The commander's intent in the OPORD describes the overarching goal of the OPORD. The commander's intent of OPORD 16-189 is:

"As the Army continues to evolve, my intent is to posture AMC to ensure that we provide readiness to the future force while continuing to take care of the soldiers of today and in the future. AMC will align mission command toward three portfolio-based organizations empowered to provide sustainable readiness in aviation and missiles, communications and electronics, and tank and automotive. AMC will achieve a command-wide synchronized and integrated effort across the entire materiel acquisition life cycle, and provide a framework for future change to increase AMC's continued ability to shape and influence acquisition policy, procedures, and materiel solutions to meet Warfighter needs and enhance readiness today and for the future force (Army Materiel Command, 2016)."

The AMC OPORD is the current source of authority that brings the entirety of AMC's acquisition responsibilities, founded in the Goldwater-Nichols Act and augmented by thirty one years of additional public laws and regulations, into the context of the Army's current materiel readiness environment.

Chapter 3: Methodology

Introduction

This chapter describes the research methodology used to collect and analyze data related to the research question: in what ways has the implementation of the AMC OPORD followed standard business models of change management. Exploratory research was used to identify the components of common business models of change management that manifested in the execution of the AMC OPORD 16-189. Relevant literature was reviewed in two areas of knowledge. The first area is common business models of change management. The second area of knowledge is the laws, regulations and formal policies that bound the ability of AMC and TACOM to implement the OPORD. Purposeful sampling of qualitative data was collected through interviews of relevant participants of organizations involved in the execution of the OPORD. Relevant organizations were the organizations directly affected by the OPRD and stakeholder organizations external to the AMC chain of command.

The standard process of research has its basis in the scientific method: identify the problem, make a prediction that if confirmed explains or resolves the problem, gather data relevant to the predication and analyze the data in the context of the problem. The scientific method as applied today has led to the development of the educational research process (Creswell, 2015). The educational research process has six steps:

- 1. Identify a research problem.
- 2. Review the literature.
- 3. Specify a purpose for research.
- 4. Collect data.
- 5. Analyze and interpret the data.

6. Report and evaluate the research.

Step 4 of the research process is synonymous with methodology of data collection. The methodology used for this research was qualitative data collection, and this methodology is the basis foundation for the qualitative thematic analysis used in step 5 of the research process.

There are five steps involved in the methodology of data collection. The methodology steps are also applied differently when using qualitative versus quantitative analysis. The five steps in the methodology of qualitative data collection are:

- 1. Identify the participants and sites to be studied and to engage a sampling strategy that will best help to understand the research question. In qualitative research, participants and sites are identified purposefully rather than randomly. The purpose is to use participants and sites that are best suited for understanding the research problem.
- 2. Gain access to the individuals and cites by obtaining permission. Vigilance of ethical issues should be maintained in this step.
- 3. Consider what types of information will best answer the research question. Qualitative analysis uses general interviews and open ended questions to minimize the risk that the information from the participants will be unintentionally bounded.
- 4. Design instruments for collecting and recording the information. In qualitative research the instrument will help to organize the data reported by the participants.
- 5. Administer the data. In particular with qualitative analysis, awareness of challenges and ethical issues stemming from collection of data in participants' work environments may arise.

The 5 steps of methodology are not necessarily linear (Cresswell, 2015, p. 204).

Data Collection Procedures

The data for this research were collected through relevant literature review and from interviews of participants from stakeholder organizations inside of and outside of the AMC chain of command.

Literature Review for Data Collection.

The literature review was conducted by reviewing two general categories of knowledge. The first area of knowledge is the information and theories on successful change management models as understood in the latter half of the twentieth century and today. Modern concepts of change management stem from two authors: Carl Lewin and Alfred Chandler. Using the works of these two individuals, a larger group of more complex theories of change management was identified. Three additional change management models were identified with common elements: Kotter, Beer and McKinsey 7-S models. The McKinsey 7-S Model was the most structured model identified in the literature review, and it was used to design the interview instrument.

The second area of knowledge used in the literature review is comprised of the laws, regulations and formal policies that frame the manner in which TACOM has implemented the OPORD. AMC and TACOM are organizations with the executive branch of the federal government. Therefor relevant statutes can be found in Title 10 of the United States Code and other Public Laws passed by the U.S. Congress. Title 10 of the United States Code contains the laws that govern the Department of Defense and its subordinate military organizations, departments and agencies. The other Public Laws reviewed were the Goldwater-Nichols Act and the NDAAs for various federal fiscal years. NDAAs are Public Laws authorizing, but not

appropriating, the use of federal funds for Department of Defense activities. NDAAs are also used by Congress to give the Department of Defense guidance on how appropriated funds can be spent. Regulations are rules developed by an executive agency that implement the laws passed by Congress. Department of Defense and Department of Army label their regulatory documents as Directives, Instructions and Regulations (specifically DoD Instructions (DoDIs), DoD Directives (DoDDs), and Army Regulations (ARs)) to carry out the statutes in Title 10 and the NDAAs. Numerous statutes, regulations and policies exist that limit or direct the nature in which AMC must organize itself and execute its mission. This broad area of knowledge influenced the perception of the participants that provided qualitative data. This area of knowledge was used to form the interview instrument, and it also provided context for Chapter Five of this paper.

Interview Data Collection.

Before conducting personal interviews of research participants, the researcher completed Lawrence Technical University's Institutional Review Board (IRB) process. The IRB is responsible for ensuring the guidelines established by the Department of Health and Human Services regarding the rights and welfare of human research participants are followed. The IRB's purpose is to ensure that the rights and welfare of participants are maintained in the course of the research. No humans were hurt in the researching and drafting of this paper.

The interview data was collected through in person interviews. The location of the interviews varied, but meeting rooms in multiple buildings located at the Detroit Arsenal in Warren, Michigan were used. Use of meeting rooms during the interviews helped to ensure confidentiality of the participants.

The number of participants was limited by DoDI 8910.01, which defines a survey as "systemic data collections using personal or telephonic interviews, or self-administered questionnaires, in paper or digital format, from a sample or census of 10 or more persons." The lengthy time involved in staffing a request to survey therefore limited the researcher to a focused group of up to nine. The instruction limits the number of individual who may be used in surveys, unless a specific request is made to utilize a larger survey group. The time constraints for the research project made the staffing of a request impractical.

A qualitative interview method was chosen because of the exploratory nature of the research. As stated by Creswell, the purpose of the interview is to probe ideas of the interviewees about the central phenomenon. Opportunistic sampling as described by Creswell was used (Creswell, 2015). At the time the research survey was taken, participants were chosen from organizations within the AMC chain command that were required to implement the OPORD (TACOM, ACC-WRN and TARDEC), and participants were chosen from stakeholder organizations that were outside of the AMC chain of command (PEO CS&CSS and PEO GCS).

Preliminary research immediately identified that the actions taken to implement the OPORD have been dynamic and continue to be generated because of the unfolding nature of the actions taken to execute the OPORD. Eight supplemental orders (FRAGOs) have been issued by TACOM since the issuance of the AMC OPORD. Audits by GAO and AAA were initiated shortly after the release of the OPORD. The participants were either directly involved in the changes executed to carry out the OPORD, or they performed liaison functions on behalf of the organizations with a stakeholder interest in TACOM.

Interview process.

Draft interview questions, the OPORD and the research problem statement were sent to participants one month in advance of the interview meetings. The same questions were asked to all participants. Follow up questions were asked to clarify responses that were ambiguous or otherwise not understood by the interviewee. Answers were recorded using a digital voice recorder and handwritten notes were taken by the researcher. Participants granted permission to record the interviews before the any answers were provided. The interview questions were then transcribed to electronic copy and documented as the final record of the interviews. The transcripts were then used for purposes of the data analysis.

Interview questions.

A survey questionnaire was provided to each participant (Appendix B), and it contained a series of questions framed by the McKinsey 7-S Model. The survey instrument included a background sheet explaining the meaning of each "S" in the McKinsey 7-S Model. This background sheet increased the probability of common understanding across the interviewees of the questions posed in the survey instrument. The survey questions were split into two categories. The first category of questions was related to the three hard elements of the McKinsey 7-S Model. The second category of questions were related to the four soft elements of the McKinsey 7-S Model. An eighth element was used to elicit information that was relevant the McKinsey 7-S Model but might have otherwise failed to have been gathered through a rigid application of the McKinsey 7-S Model. The eighth element was labeled "Supplemental," and two topics were identified via this element that were common across a majority or all of the interviewers.

Data and Analysis

The interview data were analyzed using qualitative thematic analysis. According to Creswell and Boyatzis thematic analysis is one way of analyzing qualitative data (Creswell, 2015) (Boyatzis, 1998). Both Boyatzis and Creswell explain the need to organize and then code the data. Coding is performed by identifying segments of text in the interviews and literature and then labeling the segments. During the coding, the researcher uses inductive or deductive reasoning to draw themes from the coding of the data (Braun & Clarke, 2006). Data was compared to the McKinsey 7-S Model as well as crosschecked between research participants to identify themes that were not based upon the McKinsey 7-S Model. The themes were then used to create findings. The findings were subsequently used to make conclusions about the research problem and to identify recommendations or lessons learned related to the execution of the OPORD.

Conclusion

Exploratory research and thematic analysis were used to identify the extent that TACOM has executed the AMC OPORD consistent with common business models of change management. Using literature review, the research identified consistency between the change initiated by the OPORD with previous statutory and regulatory changes. Using qualitative research enabled the researcher to identify the derivative changes and characteristics in the command relationships of the TACOM LCMC, and also to verify areas of operations in which the OPORD created no significant change from the pre-OPORD command relationships.

Chapter 4: Analysis and Results

Introduction

The purpose of this study is to identify the nature and magnitude of changes that have been made to the organizational characteristics of TACOM, ACC-Warren and TARDEC to achieve the intent of the OPORD. By using the McKinsey 7-S Model, the qualitative magnitude of the changes may be assessed. This may help stakeholders of the TACOM LCMC community to understand better their interrelated functions and responsibilities.

This chapter analyzes the data collected to answer two main questions. The first question is: to what extent was the AMC OPORD consistent with previous changes that have happened in the DoD and DA acquisition community? Historical records identifying previous organizational changes were located, and statutory and regulatory sources were identified to provide context of the historical records. The second question is: how successful has the change at the TACOM LCMC been in terms of meeting the commander's intent which was stated in the OPORD as improvement of mission alignment? Several change management models were considered via literature review. Ultimately the McKinsey 7-S Model was selected to assess the alignment of the changes at TACOM with the AMC OPORD strategy.

Qualitative data for the analysis were collected through interviews with nine federal employees working in various DA commands on the Detroit Arsenal. Voice recordings of the interviews were made, which resulted in over 40 pages of transcripts. This data were analyzed using thematic analysis and o the elements of the McKinsey 7-S Model. An eighth element labeled "Supplemental" was added to encourage and record responses that might have otherwise failed to have been elicited through the survey process. Questions asked in the "Supplemental" element were within the framework of the McKinsey 7-S Model and relevant to understanding the effectiveness of the AMC OPORD.

Literature Review Results: Historical, Statutory and Regulatory Analysis of Changes in the DoD and Acquisition Communities

Is this AMC mission realignment consistent with the previous changes in the acquisition communities? If so, how has it differed from previous changes? The literature review identified the Goldwater-Nichols Act as the baseline authority for all DoD acquisition communities. The Goldwater-Nichols Act identified roles and responsibilities for civilian and military leadership in DoD, all of the Services to include the Army, and the Joint Chiefs of Staff. The Goldwater-Nichols Act was codified in multiple sections of Title 10 of the US Code, and the sections of the US Code have been amended numerous times since the enactment of the Goldwater-Nichols Act. Because Title 10 of the US Code creates the authorities and the overarching structure of the acquisition communities, changes in these laws and implementing regulations alter the mission and structure of the commands within the acquisition communities including the TACOM LCMC community.

In February 2016 AMC realigned several of its subordinate commands via OPORD 16-189. The OPORD identified the situation:

The Army Materiel Command (AMC), as a global logistics command, provides Army materiel readiness and support to Unified Land Operations and responds to the needs of today's Warfighters, while anticipating future requirements and providing advanced equipment and materiel solutions to ensure our Army remains the most dominant land power force in the world. As a key stakeholder in every phase of the materiel development life cycle, AMC currently needs to improve mission command alignment to realize a more fully synchronized and integrated process that effectively manages and leverages each of the individual efforts performed by AMC elements across that life cycle. This organizational alignment and a more synchronized process is critical to fully support the current Chief of Staff, Army (CSA) efforts in acquisition reform (Army Materiel Command, 2016).

This situation was not plainly linked to a change in the statutes that govern the acquisition community. However, the NDAA of FY16 clearly formalized the role of the CSA at the

strategic inception of the acquisition processes of the Army. NDAA FY16 created a new section, 10 USC 2546a. The relevant portion reads:

- "(a) Objective.-It shall be the objective of the defense acquisition system to meet the needs of its customers in the most cost-effective manner practicable. The acquisition policies, directives, and regulations of the Department of Defense shall be modified as necessary to ensure the development and implementation of a customer-oriented acquisition system.
- (b) Customer.-The customer of the defense acquisition system is the armed force that will have primary responsibility for fielding the system or systems acquired. The customer is represented with regard to a major defense acquisition program by the Secretary of the military department concerned and the Chief of the armed force concerned (10 USC 2546(a)(a) and 10 USC 2546(a)(b))."

NDAA FY16 created formal and technical roles for the CSA to play in the planning and readiness of all major acquisition programs. NDAA FY 16 changed 10 USC 2366b to require CSA concurrence (i.e. CSA has a formal role), in addition to Secretary of the Army approval, before any major acquisition program is authorized to proceed beyond Milestone B of the acquisition process (10 USC 2366(a)(3)(M)). Additionally, the CSA concurrence must be technically based in that it must confirm that "appropriate trade-offs among cost, schedule, technical feasibility, and performance objectives have been made to ensure that the program is affordable when considering the per unit cost and the total life-cycle cost (10 USC 2366b(a)(3)(B))."

Prior to the statutory changes enacted via the NDAA FY16, the Goldwater-Nichols Act enabled the Secretary of the Army to assign the CSA and Staff of the Army the generalized functions to:

- "(b) Under the authority, direction, and control of the Secretary of the Army, the Army Staff shall-
- (1) subject to subsections (c) and (d) of section 3014 of this title, prepare for such employment of the Army, and for such recruiting, organizing, supplying, equipping (including those aspects of research and development assigned by the Secretary of the Army), training, servicing, mobilizing, demobilizing, administering, and maintaining of the Army (10 USC 3032(b)(1))."

Language in 10 USC 3014 created structure that places the function of acquisition within the Office of the Secretary of the Army rather than the CSA and Army Staff. However, similar to 10 USC 3032, 10 USC 3014 also allows for the CSA and Army Staff to provide advice and support regarding acquisition matters to the Secretary of the Army and the Office of the Secretary of the Army. There have been numerous changes in the structure of the Army acquisition community since the enactment of Goldwater-Nichols Act. Notwithstanding the statutory language in the NDAA FY16, the frequent change of structure within the DoD and Army acquisition communities is a predictable outcome of the statutes that give the Secretary of Defense and the Service Secretaries the latitude to choose the degree of support they receive from the Service Chiefs in acquisition decision making. It is the discretionary and broad statutory language in 10 USC 3014 and 10 USC 3032, original to or preceding the Goldwater-Nichols Act, which has enabled the shifting structures inside of the Army for over 30 years.

The purpose behind the OPORD becomes more nuanced when seen through the lens of the responsibilities given to the CSA for Army acquisition in the NDAA FY16 rather than through the original language of Goldwater-Nichols Act. The language in NDAA FY16 formalizes the role of the CSA in the acquisition process rather than leaving the role of the CSA to the discretion of the Secretary of the Army. The responsibility of AMC in supporting CSA in this formalized role is not driven by statute. The role of AMC was created by regulation, specifically Army Regulation 10-87 (AR 10-87), revised in 2007. AR 10-87 relies on the authority of 10 USC 3013 which authorizes the Secretary of the Army to organize the Army, and it also relies on the authority in 10 USC 3074 for the Secretary of the Army to create "commands, forces, and organizations"

of the Army. AR 10-87 states that AMC reports to the CSA. AR 10-87 also directs AMC to be responsible to the Secretary of the Army for functions authorized via 10 USC 3013(b). The acquisition functions enumerated in 10 USC 3013(b) include: organizing, supplying, equipping, training, servicing, mobilizing and maintain the Army.

The changes brought about by AMC's OPORD 2016-189 were consistent with portions of previous structures and functions of AMC commands. Starting in 1997 and 1998, the predecessor office to ASA(ALT) placed program managers in charge of total life cycle costs of their programs. However, no structural reorganization occurred, and overlapping efforts in both PEO and AMC commands persisted. Initiatives to improve the acquisition process vis-à-vis ASA(ALT) and AMC took a back seat to the Global War on Terrorism after 2001 (Flanagan, 2007). In 2004 the PEOs were dual hatted; reporting directly to ASA(ALT) and incorporated into LCMC command structure as Deputies to the LCMC Commanding Generals (Bolton & Kern, 2004), (AMC, 2017). This formal reporting relationship between PEO and LCMC leaders did not last. However the supporting and supported relationships between PEOs and LCMC commands has been present since the enactment of Goldwater-Nichols. The common understanding of the supported and supporting relationships has helped to mitigate the tension that might otherwise exist between the PEO and LCMC commands.

Another significant relationship that has been present since the enactment of the Goldwater-Nichols Act is the relationship between the LCMC commands and the contracting centers. Until 2008, each of the LCMC's also supervised and was supported by an aligned contracting center, and that aligned contracting center also provided support to one or more PEOs (Appendix C, record of AMC organization charts). In 2008

ASA(ALT) created the Army Contracting Command (ACC HQ). ACC HQ was given control of those contracting centers that had been in support of the LCMCs (Geren, 2008). In addition to the change in control of the contracting centers, the Head of Contracting Activity (HCA) authority changed numerous times after 2008. This is significant because the HCA has several authorities in the contracting process, including the authority to appoint contracting officers (AFARS 5101.603-1). The HCA's decision to delegate the authority to individuals in federal contracting centers is discretionary, and therefore the HCA has positional as well as regulatory authority to direct how contracting officers award and administer their contracts. At the time the OPORD was issued, the AMC commanding general was the HCA for all of ACC. The AMC commanding general was also the immediate superior of the LCMC commanding generals. The OPORD's direction to place the Directors of the ACC contracting centers under direct report to the aligned LCMC is a partial revision to the structure that existed prior to the creation of ACC HQ in 2008, and this also streamlined the chains of command in the ACC with the chains of command in the LCMCs. However HCA authority was mostly recently moved from the AMC commanding general to the ACC HQ commanding general on December 6, 2016 (Easter S. B., 2016). This means that the directors of the ACC contracting centers now report to both the LCMC and the ACC commanding generals, and this current structure is not consistent with previous command structures. See also Figures 1, 2, and 3 and Appendix C for various structural alignments of LCMC commands to PEO and Contracting Centers.

The alignment of the Director of TARDEC to be directly rated by the TACOM commanding general (and similar arrangements at other LCMC communities) appears to

be a new structure. However, the funding of most of the TARDEC activities is directed to TARDEC from Department of Army via RDECOM. The directed nature of the funding limits the discretion that either the TACOM commanding general, RDECOM commanding general, or the PEOs have to influence TARDEC's lines of operations. The shared values and style of TARDEC and the TACOM LCMC community are closely aligned, and this mitigates the risk of misalignment between these organizations.

However, because the authority of the TACOM commanding general over the execution of TARDEC operations is limited, it is unclear that the OPORD's change in rating of the TARDEC director to the TACOM commanding general is a significant variation of previous structures in the Army acquisition community.

Survey Review Results and the McKinsey 7-S Model

The second question is: how successful has the change at the TACOM LCMC been in terms of meeting the commander's intent which was stated in the OPORD as improvement of mission alignment? The McKinsey 7-S Model was used to frame the organizational characteristics of TACOM, and from this framework the alignment of the changes at TACOM with the strategy of the AMC OPORD was assessed. The McKinsey 7-S Model is a commonly used tool for assessing an organization's success in institutionalizing a change. The 7-S Model assumes that an organization is more than merely its structure interacting with the universe the organization occupies. The "picture of the thing is not the thing... An organizational structure is not an organization (Peters, Phillips, & Waterman, 1980)." The 7-S elements are interdependent; a change to one will have an effect on the other elements. To make an organization operate more efficiently, the alignment of the elements to each other must be improved (Pascale & Athos, The Art of Japanese Management, 1981).

Qualitative data for the analysis were collected using interviews of nine federal employees working in various Army commands on the Detroit Arsenal. Voice recordings of the interviews were made resulting in over 40 pages of transcripts. These data were coded to the elements of the seven elements of the McKinsey 7-S Model using thematic analysis. The McKinsey 7-S elements are: strategy, structure, systems, shared values, skills, staff and style. Strategy is the purpose of the business and the way the organization seeks to achieve its purpose. Structure is the division of an organization into operations and its coordination mechanisms. Systems are the formal procedures for measurement, resource allocation, and rewards. Shared values are the culture of the organization. Skills are the core competencies that an organization needs to achieve its goals. Staff is an organization's human resources and associated demographic and educational characteristics. Style is synonymous with the leadership approach of the organization's senior leaders. An eighth element was used in the survey of the focus group. An eighth element labeled "Supplemental" was added to the survey instrument to encourage and record responses that might have otherwise failed to have been elicited through the survey process. Questions asked in the "Supplemental" element were within the framework of the McKinsey 7-S Model and relevant to understanding the effectiveness of the AMC OPORD.

Preliminary consultation with staff members of ACC-WRN, PEO CS&CSS, PEO GCS and TACOM identified divisions in organizations that were most likely to be affected by implementation of the OPORD. Leaders in these divisions were consulted to identify employees who were or had been tasked to support OPORD related matters. Specific employees were then identified to participate in a focus group. The organizations represented by the focus group were: ACC-WRN, PEO CS&CSS, PEO GCS, TACOM and TARDEC.

Strategy: The Purpose of the Business and the Way the Organization Seeks to Achieve Its Purpose.

The strategy of the AMC OPRD can be found in the section of the OPORD titled, "Commander's Intent." It reads:

"Commander's Intent. As the Army continues to evolve, my intent is to posture AMC to ensure that we provide readiness to the future force while continuing to take care of the soldiers of today and in the future. AMC will align mission command toward three portfolio-based organizations empowered to provide sustainable readiness in aviation and missiles, communications and electronics, and tank and automotive. AMC will achieve a command-wide synchronized and integrated effort across the entire materiel acquisition life cycle, and provide a framework for future change to increase AMC's continued ability to shape and influence acquisition policy, procedures, and materiel solutions to meet Warfighter needs and enhance readiness today and for the future force (Army Materiel Command, 2016)."

The essence of the strategy was understood by the interview participants to be: AMC, through TACOM and its other LCMC commanders, will gather information on current acquisition activities related to the readiness of current and future Army forces. One TACOM participant summarized the strategic goal of the OPORD as providing the LCMC commanding generals with the ability to provide information to AMC's CG, and the subsequent use of the information by AMC to provide informed positions to the CSA regarding readiness and sustainment issues. The participants invariably provided comment that the AMC OPORD as executed by TACOM did not affect their organizations' own strategies.

One participant explained that the direct impact of the strategy's focus on readiness had caused his organization to include consideration of readiness issues in the organization's Science and Technology research projects. However, the nature of the Science and Technology projects

is such that readiness considerations tend to be less significant in altering the fundamental nature of those projects.

The participants from outside of TACOM discussed the possibility that the TACOM commanding general could exercise his discretion to prioritize the activity of ACC-WRN and TARDEC. These participants suggested that if the TACOM commanding general should use his authority to prioritize ACC-WRN contracting missions, this could potentially put the missions of TACOM's stakeholder organizations at odds with TACOM's mission. However, all participants also affirmed that the TACOM commanding general had not exercised this discretion, and that it was not a source of conflict or concern within their organizations at this time.

All participants seemed to understand the purpose of the strategy of the OPORD as a means for AMC to receive more information regarding the status of major acquisition programs in the Army. All participants believed that the OPORD was likely to be successful in this regard. As previously discussed, the order from AMC to gather this information is consistent with the CSA's recent statutory mandate and with AMC's mission. However, all participants discussed the concern and confusion that was created by the unanticipated roll-out of the OPORD. Neither internal AMC organizations nor external stakeholders were informed of the OPORD prior to its release. In light of the overlapping parts of ASA(ALT) and AMC mission, the decision to release the OPORD without prior communication led to reluctance to support it and skepticism of its purpose.

Structure: The Division of an Organization into Operations and Its Coordination Mechanisms.

All of the focus group participants from ACC-WRN, TARDEC and TACOM provided positive support for the new monthly meetings held by the TACOM CG. The meetings provide a more holistic view of the acquisition operations at and aligned to the TACOM LCMC. This view provides the first opportunity to align operational activities to the AMC commander's concerns regarding readiness and sustainment. The meetings also provide an additional forum to address administrative issues related to those operations; primarily the related funding and staffing requirements. Representatives of the PEO organizations do not participate in these meetings and provided no information in this regard.

All participants confirmed that their organizations have the appropriate structures in place to support the strategy of the OPORD. The only organization to create a new unit was TACOM. TACOM created the Acquisition Life Cycle Cell (ALCC). The ALCC plays a significant role in the execution of the AMC OPORD. The AMC OPORD states the functions of the LCMC ALCC are to:

"Know and forecast the calendar for: the Army Requirements Oversight Committee (AROC), Configuration Steering Boards (CSB), Strategic Portfolio Analysis Reviews (SPAR), Program Milestone Reviews where AMC will be brought in, Operational Sustainment Reviews (OSR), Acquisition Strategy Panels (ASP). Represent TACOM in these reviews and coordinate the critical thinking provided by ILSC professionals. Coordinate actions to resolve TACOM issues identified during aforementioned reviews. Provide TACOM staff analysis for Army decisions within the program review cycle (Risks, Impacts, Recommendations). Build a knowledge management database of acquisition documents for TACOM. Be the single entry point for staffing Acquisition Documentation within TACOM and ILSC. Provide acquisition subject matter expert guidance within TACOM. Gain continuous visibility into programs at all ACAT levels, particularly ACAT III. Lead an Acquisition information exchange consortium of PEO leads, TACOM, and TARDEC to feed the planning for future program analysis. Set conditions to improve Technology transition from

TARDEC into Acquisition Programs of Record (Army Materiel Command, 2016)."

The focus of the ALCC centers on the collection of documents for the various TACOM, AMC and DA acquisition boards and reviewing bodies, and it will maintain schedule awareness of the boards and reviewing bodies for TACOM. The ALCC is not intended to play a significant role in the analysis of acquisition programs and corresponding documentation. A consistent general observation about the effectiveness of the ALCC from the focus group participants is that the TACOM ALCC is still working to meet some of the objectives listed in the OPORD.

Operation Control (OPCON), Administrative Control (ADCON) and Tactical Control (TACON) reporting requirements were created by the OPORD. ACC Headquarters, Research Development and Engineering Command (RDECOM) and TACOM now share various OPCON, ADCON and TACON controls and reporting requirements over ACC-WRN and TARDEC.

Many of the recurring reporting requirements have been clarified. Focus group participants commonly cited the examples of clear reporting requirements include: Commander's Critical Information Requests (CCIRs), personnel/manning level reports, Management Employee Relations (MER) reports, Equal Employment Opportunity (EEO) reports, budget and Program Objectives Memorandum (POM) reports, and Congressional Inquiries. However, most participants expressed some degree of uncertainty regarding the staffing of infrequent or irregular reporting requirements.

A majority of focus group participants identified dual reporting inside AMC as one of the practical consequences of the uncertainty in the reporting requirements. All but one of these participants indicated that the dual reporting was not burdensome, and these participants also indicated that dual reporting often improved the quality of the report in question. This

improvement was related to the need to need to address the equities of both ADCON and OPCON organizations via the report. Focus group participants from three of the four TACOM LCMC organizations raised concerns that the reporting timelines may have increased, however no record of timelines were available.

All participants discussed the risk of parallel reporting through AMC and ASA(ALT) commands. The PEO organizations do not directly participate in the new reporting requirements of the OPORD. This increases the possibility that senior Army leaders may receive differing reports via reporting form PEO organizations to ASA(ALT) vis-à-vis the LCMCs reporting to AMC on the same subject matters, and it could create tension between commands.

The following common themes were identified relating to the alignment of structures subsequent to the OPORD. A significant theme was that OPCON, ADCON and TACON reporting requirements were poorly understood when the OPORD was issued. Over the following year, the regular reporting requirements were identified as either OPCON or ADCON reporting functions. Some confusion over the infrequent or irregular reporting requirements remain, but all organizations have found acceptable ways to submit dual reports on these occasions. Another significant theme was that most of the new reporting requirements merely formalized pre-existing albeit informal processes of information sharing that existed within the TACOM LCMC. Anecdotally the function of the TACOM LCMC Board of Directors (BOD) was mentioned by several of the participants when asked about "Structure." Because the BOD is an informal structure, its relevance was addressed in "Shared Values." Another theme common to a majority of the focus group participants was that no new structures were observed or understood to be created; interesting in that the ALCC is clearly a new structure. From these themes it appears that the structures in place at TACOM are aligned with the strategy of the

OPORD. However, the complexity of the OPCON, ADCON and TACON reporting relationships still requires some case by case resolution, and this indicates that structural alignment is still being implemented.

Systems: The Formal Procedures for Measurement, Resource Allocation and Rewards.

All focus group participants responded that ACC-WRN, TARDEC and TACOM have the necessary systems in place to implement mission alignment in accordance with the AMC OPORD. The AMC commands in question, as well as both PEO organizations, are all part of the Department of Army. The Army uses standard systems across all of its various organizations. These pre-existing systems enable the appropriate utilization of resource allocation and rewards.

These systems are less able to measure the success of the OPORD in achieving its goals. Seven of the participants expressed their belief that an unspoken goal of the OPORD was to improve AMC's ability to discuss and champion 'readiness and sustainability' at the highest levels of Army leadership. However, six participants identified the difficulty in measuring any DoD organization's ability to measure 'readiness, and sustainability.' One of the participants expressed knowledge that the Army had been trying to measure 'sustainment' for at least 30 years, and that these attempts had shown very limited success in providing meaningful data.

Six participants expressed difficulty identifying measurement tools to track the time necessary to successfully award contracts. However, these same participants also stated that the OPORD had made no impact on the ability of ACC-WRN to award contracts. The remaining three participants had no information or opinion regarding the measurement of time to award contracts.

One of the themes that arose from answers provided by all participants was the difficulty measuring the success of the OPORD, assuming that the primary purpose of the OPORD is to raise the awareness of the CSA's visibility, through AMC, of the sustainment and readiness issues facing the portfolios of vehicles supported by AMC. Two of the participants stated that AMC continues to search for the best ways to measure the success of the AMC OPORD. The majority of participants expressed personal opinions that the Army had been trying to measure sustainment and readiness for years; always with limited success.

A second theme that arose from answers regarding 'Systems' was that common systems across the Army enterprise provide a reliable foundation for discussing the impacts of change in the Army. The Army's enterprise resource planning (ERP) programs are used by ASA(ALT) and AMC commands to observe, track and report on their business functions, logistics and operations. Examples of ERPs that are used across the TAOMC LCMC community and which support acquisition activity include the General Fund Enterprise Business System (GFEBS) and the Logistics Modernization Program (LMP). In the TACOM LCMC community and AMC at large, the Virtual Contracting Enterprise (VCE) web-based tool enables the commands to use a common database and measurement system to track contracting activity. The OPORD had no impact on the systems that are being used across the Army and the TACOM LCMC community that support acquisition activity.

The systems of the Army were aligned with the needs of the TACOM LCMC community of commands. The OPORD made no changes that required these systems to be changed or for new systems to be created. An ongoing concern with the systems that exist within the Army is that they do not enable the Army to measure readiness and sustainment in a manner that enables the Army to strategically improve readiness and sustainment.

Staff: An Organization's Human Resources and Associated Demographic and Educational Characteristics.

A majority of the participants stated that no new staff was required for the execution of the OPORD. All participants that had knowledge of the ALCC stated that TACOM did need to hire additional employees to staff the ALCC. Four participants discussed that TACOM proposed an alternative plan to AMC; proposing to use its Material Solutions Organization rather than create an ALCC. These participants stated that they were informed AMC declined to accept the proposal. All participants discussed that their organizations were not authorized additional funding or positions to support the AMC OPORD generally and the ALCC specifically. TACOM hired four additional employees to support its ALCC, although TACOM's total allocated number of employees remained unchanged by this hiring action. Two participants also discussed that staff members of their organization did take on additional duties to address OPCON and ADCON reporting issues specific to their organizations. A common theme regarding staff is that there were no significant staffing issues involved in the implementation of the OPORD at TACOM. This is due in part because of the pre-existing informal relationships and structures that existed in the TACOM LCMC community, and it is also due in part because of budget and staffing constraints in accordance with Congressional mandates.

Skills: The Core Competencies That an Organization Needs to Achieve Its Goals.

Of the six organizations represented in the focus group, only one lacked the complete skills to effectively implement the OPORD. That organization was TACOM HQ. The creation of the ALCC in TACOM required contract specialists (employees in occupation series-1102 of

the federal government), but TACOM had no 1102 series positions on its TDA (Table of Distribution and Allowances). In accordance with regulation, TACOM was not allowed to hire additional employees beyond the ceiling limit of the TDA. Although 1102 series employees are present in significant numbers in the other LCMC organizations, those employees cannot be permanently assigned to TACOM. The LCMC organizations were not responsible for staffing the ALCC, and so those organizations did not provide direct support to the ALCC via labor hours of their own 1102 series employees. The theme that was present in the information regarding skills is that no new skills were needed for most organizations, but TACOM had to acquire 1102-series skilled employees that were required for the ALCC from outside of the LCMC employee base. All participants discussed the role of matrix employees, and this is discussed in 'Shared Values.'

Style: The Leadership Approach of the Organization's Senior Leaders.

One of the goals of the AMC OPORD was to strengthen leadership accountability. By focusing on portfolios (i.e. AMCOM, CECOM, TACOM LCMCs) the mission alignment works to centralize accountability for mission success with LCMC commanders rather than spreading accountability across various functions, such as contracting and R&D. To that end, the OPORD made the LCMC commanders the reporting seniors of the aligned ACC and RDEC senior leaders. None of the participants were aware of a strategic or leadership conflict related to the change in reporting senior relationships.

The leadership change instituted by the OPORD had the potential for putting the priorities of the LCMC commanding general in conflict with the goals of the senior leaders in PEO CS&CSS and PEO GCS. As one of the focus group participants observed, "Missions

between ASA(ALT) organizations and AMC organizations can overlap. At the Detroit Arsenal this has led to mutual respect, professionalism, and in those areas that could overlap there is a significant exercise of restraint." None of the participants were aware of conflicts arising from the TACOM commanding general's ability to re-prioritize operations in ACC-WRN and TARDEC. Also none of the participants were aware of any situation in which the TACOM commanding general had exercised this authority.

A consistent statement from all focus group participants was that the styles of their leaders' strategic relationships with their peers in the TACOM LCMC community did not change after the OPORD was issued. Each participant described the relationship between the senior leaders of their organization with peers in the TACOM LCMC community as collaborative, cooperative, or both. Participants from ACC-WRN, TACOM and TARDEC believed that the direction from their senior leaders has always been to support the PEO organizations as customers; emphasizing the nature of supported and supporting commands. One participant's statement regarding her leadership summarizes the statements of the other five participants from outside the PEO organizations, "Leadership styles have not changed. The leadership style has always involved close engagements with customers and stakeholders. At TACOM the LCMC community of senior leaders was already a coalition of the willing." Her comments echo the concern made in 2008 by the former commanding general of TACOM, William "Mike" Lenaers, Major General (ret) (Lenaers, 2008). His concern was that, with the removal of the PEOs from the dual hatted structure of both ASA(ALT) and AMC chains of command in 2008, the LCMCs would only work if there was a coalition of the willing.

Comments provided by the participants from the PEO organizations regarding leadership relationships between the senior leaders of the TACOM LCMC community were also positive.

Their comments included observations of the desire of both PEO organizations to constantly find ways to improve how the supported (e.g. PEOs) and supporting (e.g. ACC-WRN, TACOM, and TARDEC) organizations can improve how they work together. Frequent comments were made by seven of the participants to the function of the TACOM LCMC BOD. Their comments indicated that the BOD provides a forum for communication and discussion of common to the organizations that comprise the TACOM LCMC community. More information regarding the role of the BOD is discussed in 'Shared Values.'

One of the themes that arose in the conversations with the participants was that the senior leaders of the organizations could allow themselves to be in a competitive position with their peers, but that they restrained themselves and the activities of their organizations to avoid or minimize this type of risk. Another common theme is that the participants observed that their organization's leader demonstrated a significant amount of trust in the senior leaders and staffs of the other commands in the TACOM LCMC community.

Shared Values: The Culture of an Organization.

Fundamental to each organization's culture is the shared Army vision and mission. This is translated into each organization's specific vision and mission statement. Collaboration, cooperation, respect and trust were common descriptors used by all of the participants to describe why the organizations at the Detroit Arsenal work well together. A common description of serving the organizations' stakeholders, to include the soldiers of the Army, was also a theme in each participant's discussion of shared values.

The focus group participants were asked what they believed facilitated a shared culture across the TACOM LCMC community of organizations, in addition to the Department of Army

vision and mission statements. Eight of nine respondents discussed the fact that many Army civilians and most/all Army active duty service members share a significant amount of common training. The U.S. Code provides a common training framework for the defense acquisition workforce. Chapter 87 of Title 10 of the U.S. Code is titled, "Defense Acquisition Workforce." Section 1701 "Management Policies" of this Chapter states:

- "(a) Policies and Procedures.—The Secretary of Defense shall establish policies and procedures for the effective management (including accession, education, training, and career development) of persons serving in acquisition positions in the Department of Defense.
- (b) Uniform Implementation.—The Secretary shall ensure that, to the maximum extent practicable, acquisition workforce policies and procedures established in accordance with this chapter are uniform in their implementation throughout the Department of Defense (10 USC 1701)."

The statutory Sections of Chapter 87 go on to describe in greater detail the roles and responsibilities of DoD to provide consistent and professional training across the acquisition communities of DoD and to do so across all experience levels of the acquisition workforce.

A common criticism of the OPORD was the confusion it created regarding OPCON,
ADCON and TACON reporting relationships between ACC-WRN, AMC, RDECOM, TACOM
and TARDEC commands. Each of the participants believed that the confusion was largely
mitigated by the common culture and informal channels of communication that existed prior to
release of the OPORD. Examples cited of the shared culture expressed through informal
channels included: TACOM LCMC Board of Directors, PEO portfolio reviews that include
ACC-WRN and TACOM officials, Resource Manager Summits that include fiscal managers
from all of the TACOM LCMC commands, and the channels of communication between the
Program Manager offices and the Integrated Logistics Support Center (ILSC) at TACOM.

The BOD epitomizes the informal channels of communication and shared culture at the Detroit Arsenal and the TACOM LCMC. The BOD is a forum in which the senior leaders of the TACOM LCMC community share common concerns and issues. The BOD was not created through statute, Army regulation, policy or general orders. The original members of the BOD created a document to explain the need for and purpose of the BOD. This document is called "The Playbook (TACOM LCMC, 2008)." The Playbook cites the Memorandum of Agreement between the ASA(ALT) and AMC commands of 2004 as the basic agreement that created the LCMC concept. The Playbook describes the LCMC concept as the solution to "overcome a culture of research & development versus acquisition versus logistics (TACOM LCMC, 2008)." The Playbook discusses the culture that the TACOM LCMC community needs in order to be successful, "The TACOM LCMC roles and responsibilities... highlights processes across the life cycle and helps promote a culture that encourages all LCMC partners to work together as a unified community (TACOM LCMC, 2008)."

One other factor that fosters a culture of shared values was identified by each of the participants. Each participant identified the matrix support and/or inter-organization transfers of Army employees at the Detroit Arsenal as significant to establishing and maintaining the shared culture in the TACOM LCMC community. ACC-WRN, TACOM and TARDEC all supply employees to the two PEOs as matrix support. These assignments can be durable as regular staff, and the assignments can also be dynamic members of Integrated Product Support Teams for a variety of projects. An environmental issue is intertwined with the matrix support; the physical proximity of the commands on the Detroit Arsenal. Among the TACOM LCMC community of commands, those commands with staff located at the Detroit Arsenal who also

provide matrix support appear to be best situated to share in the cross-pollination of ideas and practices facilitated by matrix employees.

The single most important theme that arose from all of the focus group participants was the strength of the common culture among employees of the TACOM LCMC community. The shared values facilitate a common framework to understand issues, and a common bond among employees who see their role in their organization's mission as supporting the warfighters of the Army and the armed services.

Supplemental: the Eight Element Used to Elicit Further McKinsey 7-S Model

In addition to McKinsey's seven "S" elements, participants were asked a series of questions under an eight category called "Supplemental." The purpose of these questions was to draw out responses relevant the McKinsey 7-S Model that might have otherwise failed to have been elicited through the survey process. Two topics were identified that were common across a majority or all of the interviewers.

One topic of information concerned the measurement of the effects of the OPORD. The OPORD and its supplemental Fragmentary Orders seek input from the affected commands regarding the nature of the measurements and the activity or impact to be measured.

The second topic of information was the observation by seven of nine participants that the TACOM commanding general had been made significantly more aware of the acquisition activities supported by ACC-WRN, TACOM and TARDEC. This greater awareness is causally related to the OPORD's requirement that the LCMC commanders provide information to AMC in order to facilitate "AMC's continued ability to shape and influence acquisition policy, procedures,

and materiel solutions to meet Warfighter needs and enhance readiness today and for the future force (Army Materiel Command, 2016)."

Summary

The purpose of this research was to gain a broader insight into the successes and difficulties that the TACOM LCMC community has had in implementing the AMC OPORD. Two questions framed the analysis. Question one was: to what extent was the AMC OPORD consistent with previous changes that have happened in the DoD and DA acquisition community? The statutory basis of DA and AMC acquisition missions was analyzed beginning with the Goldwater-Nichols Act in 1986 and concluding with revisions enacted via the NDAAs for FY16 and FY17. Regulatory guidance was also reviewed along with formal implementation policies. Memorialization of ASA(ALT) and AMC hierarchies were also considered in this analysis. The analysis indicates that the AMC OPORD was consistent with existing statutory authorities of the CSA's involvement with resource identification and sustainment, and the CSA's authorities in this regard are being operationalized by AMC's OPRD. Question two was: how successful has the change at the TACOM LCMC been in terms of meeting the commander's intent which was stated in the OPORD as improvement of mission alignment? Data were collected via a survey instrument from nine participants. The participants were selected whose positions were most likely to be impacted by the execution of the OPORD. The survey data were evaluated through the application of the McKinsey 7-S tool. Chapter 5 will discuss the data further and identify significant findings and their implications for additional research.

Chapter 5: Conclusion and Recommendations

Introduction

This chapter addresses the two questions, identifies limitations of the research, provides suggestions for future research, and draws conclusions.

Ouestion 1

The first question is: to what extent the AMC OPORD was consistent with previous changes that have happened in the DoD and DA acquisition community? Historical records identifying organizational changes were located, and changes to statutory and regulatory sources were tracked to provide context to the historical records. The AMC OPORD is consistent with current and historical statutory guidance. The NDAA FY16 specified a more definitive role for the CSA in the process of identifying and prioritizing Army requirements. However it is likely that this statutory change merely formalizes what had been an informal and personality driven role of the CSA in previous years. The OPORD also seems to take a step towards previous structures in the Army acquisition community. In particular this move aligns the contracting center towards the control of the LCMC commander, and the LCMC commander had complete control of the contracting centers prior to 2009. By focusing the contracting centers and RDECs on readiness and sustainment issues while these organizations also provide support to PEOs and PMs, the LCMC structure moves towards the framework that existed from 2004-2008 when the LCMC and PEO leaders were dual hatted with reporting responsibilities to both ASA(ALT) and AMC headquarters. The changes created by the OPORD seem consistent with, and in many ways less extreme than, previous changes within the Army acquisition community.

Question 2

The second question is: how successful has the change at the TACOM LCMC been in the context of business models of change management? The McKinsey 7-S Model was used to frame the organizational characteristics of TACOM, and from this framework the alignment of the changes at TACOM to the strategy of the AMC OPORD was assessed.

Strategy. AMC's strategy was identified in the OPORD as a need to be better postured to provide sustainment and readiness to the Army. This strategy is consistent with the CSA's statutory responsibilities as well as AMC's regulatory mission identified in AR 10-87. However the abrupt issuance of the OPORD initially created resistance to its implementation. Despite this initial resistance, the strategy was in alignment with AMC's responsibilities. Future strategy changes via OPORD would benefit from dialogue with AMC's stakeholders prior to issuance of OPORDs.

Structure. The only new unit to be created by the OPORD at TACOM was the ALCC. The ALCC is charged with gathering information for regular monthly reports on readiness and sustainment issues to both AMC and TACOM CGs. Structures for tracking and utilizing funding and personnel resources were already in place. The OPORD also created specific OPCON, ADCON and TACON reporting responsibilities. Although supplemental orders were issued to clarify the nature of these reporting responsibilities, some latent ambiguity remains. Because of this ambiguity, the structure created to implement to OPORD could be further aligned.

Systems. No new systems were necessary to implement the OPORD. Common enterprise-wide Army systems help enable communication, data and resource sharing. There was no need to further align these systems in order to implement the OPORD.

Staff. No additional staff was required to implement the OPORD, except for four employees to stand up the ALCC. TACOM was not authorized to increase its total number of employees when it created the ALCC, and thus other parts of the TACOM organization had to reduce staffing in order for the ALCC to be staffed. Also one participant observed that his organization did spend additional time responding to the OPORD's reporting requirements, and that his organization had elected to keep this effort within the immediate headquarters staff of his organization. Although these two examples demonstrate that some additional levels of staffing would have been beneficial, overall the staffing levels within the TACOM LCMC are aligned with the requirements necessary to properly execute the OPORD.

Skills. Overall the organizations in the TACOM LCMC had employees with the necessary skills in place when the OPORD was issued. Only TACOM required employees with additional skills in order to properly execute the OPORD. TACOM's ALCC required employees with a contracting specialty. TACOM was able to place new employees with this skillset into the ALCC, and thus the skills of the employees who are executing the OPORD are aligned with the OPORD's strategy.

Style. Leader ship styles within the TACOM LCMC community did not change because of the OPORD, and the survey information generally provided positive perceptions regarding the relationships of the senior leaders vis-à-vis each other. Through the styles of the senior leaders of the TACOM LCMC community, concepts of cooperation, trust, and restraint are manifested. This is particularly valuable given the missions of the various command scan at times be overlapping, and the implementation of supported and supporting roles between the commands needs to be utilized in order to achieve the missions of all organizations. Style of leadership is aligned with the OPORD strategy.

Shared Values. Shared values are highly aligned within the TACOM LCMC. Each of the commands that are part of the TAOCM LCMC community are part of the larger Department of Army organization. The Departments of Army's core values flow down to each organization. In addition to the core values, there are significant shared experiences within the workforce itself. There is a basis of common training within both the acquisition workforce and within the ranks of current and former active duty service members. Subgroups of the TACOM LCMC community participate with their peers locally in various forums to share concerns, information and ideas. Sharing of staff across all TACOM LCMC organizations in the form of matrix support embedded within the supported organization and in the form of in temporary assignments into other commands at the Detroit Arsenal also provides significant opportunity for employees to foster and understand a common culture. The end result of all of these factors is that the shared values of the TACOM LCMC community were generally aligned with the intent of the OPORD even before its release.

Recommendations

There are two areas of the OPORD execution at TACOM LCMC that could benefit from additional change. First is the need to create metrics that can measure the efforts to improve sustainment and readiness. The OPORD does not provide significant metrics for this, and thus this issue is common to all of the LCMCs within AMC. Second is the need to clarify, through formal policy or memoranda of understanding, the specific OPCON, ADCON, and TACON tasking and reporting procedures. The current OPCON, ADCON and TACON reporting structure of the OPORD is complex. The interwoven command relationships of the acquisition community are similarly complex. It is not within the authority of the TACOM CG to alter the reporting authorities of the OPORD, however local policy within the TACOM LCMC community could be created to further clarify the specific reporting procedures.

Limitations of the Research and Suggestions for Future Research

There are two areas of limitations and corresponding future research that were identified. The first area is related to the overlapping missions of the ASA(ALT) and the AMC chain of commands. A significant body of statute and regulations exists that direct the acquisition operations of ASA(ALT), its PEOs and its PMs. This body of rules and authorities frequently does not consider the implications of AMC support to the acquisition process. Yet the applicable rules that direct ASA(ALT)'s and AMC's acquisition operations can be harmonized. Further study of the statutes and regulations that govern ASA(ALT) acquisition operations could lead to an improved understanding of how to better harmonize the missions of ASA(ALT) and AMC.

The second area is in regard to the impact of the OPORD at the AMCOM and CECOM LCMCs of AMC. Lack of research time and limitations on numbers of survey participants prevented a comparative study of TACOM's execution of the OPORD to its sister organizations. A comparative analysis of the implementation of the OPORD across the LCMCs might lead to additional benefits such as: identification of metrics by which to measure readiness and sustainment, and identification of successful process and structures at a specific LCMC for achieving superior readiness and sustainment that can be replicated at other LCMCs.

Conclusion

The primary purpose of the AMC OPORD was to enhance AMC's understanding of, and its positioning to support, the sustainability and readiness of materiel systems that support the war fighters. This purpose is in harmony with the ASA(ALT) understanding of the importance of sustainment in the life cycle management of a weapon system. "Sustainment has to start up front and early. In the beginning, start with the end in mind. The sustainment issues of a portfolio must remain in balance with everything else. 70-80% of life cycle cost is in the O&S

phase of life cycle" (Easter S. B., 2017). The TACOM LCMC community has successfully coordinated its support to weapon systems portfolios for many years and through many changes in the broader acquisition community. The OPORD created an opportunity for AMC and TACOM to identify and address sustainment and readiness issues in the weapons systems programs managed by ASA(ALT) and its PEOs TACOM's execution of the OPORD with its TACOM LCMC partners has been largely successful.

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Appendix A – IRB Approval



Institutional Review Board
Office of the Provost
research.ltu.edu irb@ltu.edu

January 14, 2017

John Gates, MBA Candidate, DAU SSCF Global Leadership and Management Lawrence Technological University College of Management jgates@ltu.edu

Dear Mr. Gates,

I am pleased to report that the IRB application to conduct research with human participants for your MBA thesis "Review of TACOM LCMC's implementation of AMC OPORD 16-189.\" has been approved under the Expedited review path for a period of one year, January 14, 2017 – January 14, 2018.

The IRB is satisfied that the following three ethical concerns regarding the treatment of your human participants have been addressed in your research protocol: (1) The research involves interviewing participants who will voluntarily consent to participate in the study; (2) Participants who will voluntarily consent to complete the survey are free to withdraw from the study at any time; (3) You do not have any copyrighted devices in your survey and/or you are using original devices and/or devices in the public domain and/or devices you are permitted to use via fair use for educators; (4) You have identified potential risks to you and the participants; and (5) You have assured that a balance exists between potential benefits of the research to the participants and/or society and the risk assumed by the participants.

Please contact the IRB if you require an extension to your project after one year. Please note you must contact the IRB if you make a change to your research protocol that impacts the ethical treatment of your research participants. Please do not hesitate to contact the IRB if you have any questions.

Sincerely,

Matthew Cole, Ph.D.

Chair, Institutional Review Board (IRB)

Lawrence Technological University

irb@ltu.edu o: 248.204.3096 f: 248.204.3099

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The Lawrence Tech IRB is organized and operated according to guidelines of the United States Office for Human Research Protections and the United States Code of Federal Regulations and operates under Federal Wide Assurance No. FWA00010997 that expires 02/23/2021.

Appendix B – Survey Instrument

Background on the McKinsey 7-S Model

The McKinsey 7S Framework is a management model developed by the McKinsey Group business consultants Robert H. Waterman and Tom Peters in the 1980s. The model is most often used as an organizational analysis tool to assess and monitor changes in the internal situation of an organization. The model is based on the theory that, for an organization to perform well, these seven elements need to be aligned and mutually reinforcing.

Commanders intent in AMC OPORD 16-189

As the Army continues to evolve, my intent is to posture AMC to ensure that we provide readiness to the future force while continuing to take care of the soldiers of today and in the future. AMC will **align mission command** toward three portfolio-based organizations empowered to provide sustainable readiness in aviation and missiles, communications and electronics, and tank and automotive. AMC will achieve a command-wide synchronized and integrated effort across the entire materiel acquisition life cycle, and provide a framework for future change to increase AMC's continued ability to shape and influence acquisition policy, procedures, and materiel solutions to meet Warfighter needs and enhance readiness today and for the future force.

HARD CATEGORIES: Strategy, Structure, and Systems

STRATEGY

The purpose of the business and the way the organization seeks to enhance its competitive advantage.

> • Who prioritizes mission related functions, and has prioritization created conflict with stakeholders' prioritization?

- Has the OPORD helped your organization to provide visibility to your leadership regarding life cycle status programs and acquisition issues?
- Does TACOM have the right strategy to implement MC-A?
 - What confusion existed after the release of the OPORD, and has it been resolved?
 - MC-A does not change any organization's mission statement, so how has it helped your organization to better achieve its goals?
- What else could TACOM do to get the strategy better?
- How has the OPORD affected your organization's ability to achieve its own mission statement?

Structure

The division of activities; and integration and coordination mechanisms.

- Do the affected organizations have the right structures?
 - What are the changes to reporting requirements related to MC-A?
 - What structure challenges existed in achieving MC-A, and how has your
 organization changed/added/removed structures in order to implement MC-A?
- How does the MC-A affect/synergize the TACOM LCMC Board of Directors (BoD) and external relationships?
- How has the OPCON-ADCON-TACON change affected integration and coordination with your organization?
 - How has the OPORD changed the internal TACOM relationships?
 - Has overlapping reporting occurred and if so what is that impact/cost?
- How has the OPORD helped or hindered synergies in your organization?
 - e.g. ILSC portfolio based readiness / purpose and work of LARS

- e.g. ACC acquisition strategies (new reporting requirements)
- e.g. TARDEC prioritization of RDE work, Process Standards Office and External Business Office
- e.g. TACOM Acquisition Life Cycle Cell (ALCC) coordination/visibility efforts.
- How has the MC-A affected your organization's G-staff structure (or enabled ACC front office staff) to work with TACOM LCMC staff counterparts?
- How has reporting and coordinating changed between your organization and TACOM
 HQ?
- Describe the affect the OPCON/TACON/ADCON change has had on your organization and its relationship with RDECON, ACC HQ, AMC HQ and other organizations.

Systems

The formal procedure for measurement, reward and resource allocation.

- Does your organizations have the necessary systems to implement MC-A?
- If it does not, what could be done to get the right systems?
- What metrics is your organization using to measure mission accomplishment, and how is this reported back to TACOM HQ and/or your organization's headquarters command?
- How has MC-A affected the TACOM relationship with your organization's G staff / Front Office?
 - Info sharing of CCIRs, has it grown/changed?
 - SHARP/MER/EEO reporting via TACOM; is that a change?
 - What redundancies were identified and/or created and were they resolved?
- Resource Allocation at ACC, ILSC, TARDEC and TACOM HQ:
 - What system is sharing budgeting, POM, and personnel info with TACOM?

- Is the reporting system itself a change?
- Does the TACOM CG now have authority in resource allocation that he did not otherwise have (OPCON-ADCON-TACON)?

SOFT CATEGORIES: Skills, Staff, Style, Shared Values

Skills

The organization's core competencies and distinctive capabilities.

- Does your organization have the right skills to implement MC-A?
- If it does not, what skills are missing and what could be done to get the right skills?
- If it did not have the right skills; what structures or systems were created that required the new skills? eg ALCC

Staff

The organization's human resources, demographic, educational and attitudinal characteristics.

- Does your organization have the right staff to implement MC-A?
- If it doesn't, what could be done to get the right staff?
- If it does not have the right staff; what structures or systems were created that required the new staff? eg ALCC
- What staffing challenges existed in achieving the MC-A?
- How has your organization changed to implement staffing re-alignments?

Style

The typical behavior patterns of key groups, such as managers, and other professionals.

- Do the current styles of leadership best implement MC-A?
- If not, what changes would assist implementing MC-A?
- How did the OPCON-ADCON-TACON roles change your organization's behavior?

- How has the role/expectations of the TACOM BoD changed?
- How has the OPORD changed the interaction/collaboration of your organization's leadership with the leadership of your stakeholder organizations?

Shared Values

The organization's culture and climate.

- How has your organization's culture adjusted because of MC-A?
- How has the OPORD impacted trust?
- How has the OPORD impacted collaboration and compromise?
- How has the OPORD impacted cooperation?
- Is there a special relationship in TACOM LCMC that may not exist at the other LCMCs?
- A common comment is that the OPORD formalized relationships that already existed;
 what does this mean?

SUPPLEMENTAL Questions beyond 7S-Model

- What has been the most significant MCKINSEY 7S change brought by the OPORD?
- To what extent has the OPORD created challenges?
- What are the significant changes, advantages or disadvantages has your organization experienced as a result of the OPORD and MC-A?
- How would you alter any changes brought on by the OPORD or the MC-A concept?
- How does your organization measure mission success or customer satisfaction?
 - Has the OPORD affected these measurements?
 - How would you suggest measuring the effectiveness of the OPORD?
 - How would you suggest measuring the support from TACOM, ILSC, ACC and/or TARDEC to your organization?

• What other organizational issues have arisen because of, or been resolved because of, implementation of the OPORD?

Appendix C – Organizational Charts

TACOM Pre-2003



Figure 4 - TACOM Pre-2003

RDECOM Activated

FY03 TACOM Team of Teams



Figure 5 - FY03 TACOM Team of Teams

TACOM LCMC Born

FY04 TACOM LCMC Team of Teams

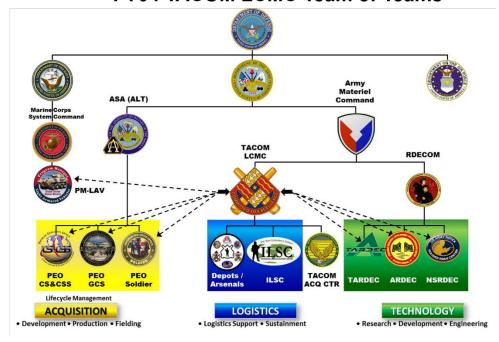


Figure 6 - FY04 TACOM LCMC Team of Teams

IMCOM Activated

FY07 TACOM LCMC Team of Teams



Figure 7 - FY07 TACOM LCMC Team of Teams

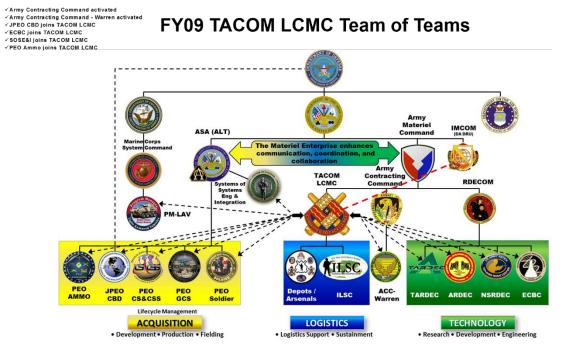


Figure 8 - FY09 TACOM LCMC Team of Teams

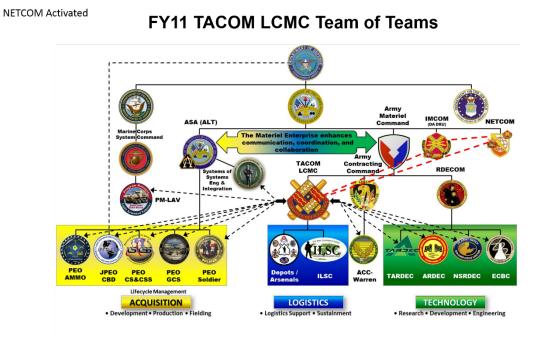


Figure 9 - FY11 TACOM LCMC Team of Teams

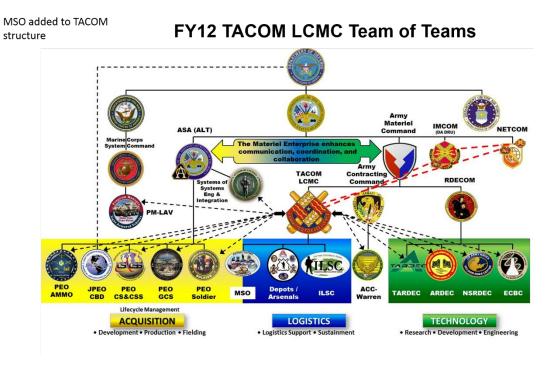


Figure 10 - FY12 TACOM LCMC Team of Teams

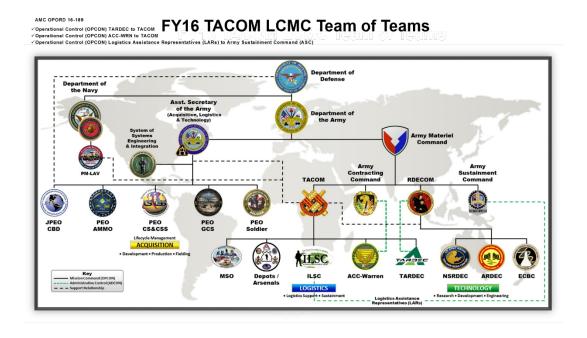


Figure 11 - FY16 TACOM LCMC Team of Teams

Appendix D - Glossary of Acronyms

AAA Army Audit Agency

AAE Army Acquisition Executive

ACC Army Contracting Command Headquarters

ACC-WRN Army Contracting Command – Warren

ACQ CTR Acquisition Center

ALCC Acquisition Life Cycle Cell

ADCON Administrative Control

AMC Army Material Command

AMCOM Aviation and Missile Command

AR Army Regulation

ARDEC Armament Research Development and Engineering

Center

AROC Army Requirements Oversight Committee

ASA(ALT) Assistant Secretary of the Army for Acquisition,

Logistics and Technology

ASC Army Sustainment Command

ASP Acquisition Strategy Panel

BOD Board of Directors

CCIR Commander's Critical Information Request

CECOM Communications and Electronics Command

CSA Chief of Staff of the Army

CG Commanding General

CSB Configuration Steering Board

DA Department of Army

DoD Department of Defense

DoDD Department of Defense Directive

DoDI Department of Defense Instruction

ECBC Edgewood Chemical Biological Center

EEO Equal Employment Opportunity

ERP Enterprise Readiness Program

FRAGO Fragmentary Order

FY Fiscal Year

GAO Government Accountability Office

GFEBS General Fund Enterprise Business System

HCA Head of Contracting Activity

HQ Headquarters

ILSC Integrated Logistics Support Center

IRB Institutional Review Board

JPEO CBD Joint Program Executive Office Chemical and

Biological Defense

LAV Light Armored Vehicle

LCMC Life Cycle Management Command

LMP Logistics Modernization Program

MER Management Employee Relations

MSC Major Subordinate Command

MSO Material Systems Organization

NDAA National Defense Authorization Act

NSDD National Security Decision Directive

NSRDEC Natick Soldier Research Development and

Engineering Center

OPCON Operational Control

OPORD Operations Order

OSR Operational Sustainment Reviews

PARC Principle Agent Responsible for Contracting

PEO Program Executive Office

PEO CS&CSS Program Executive Office Combat Support &

Combat Service Support

PEO GCS Program Executive Office Ground Combat Systems

PM Program Manager

POM Program Objectives Memorandum

R&D Research and Development

RDEC Research Development and Engineering Center

RDECOM Research Development and Engineering Command

SECARMY Secretary of the Army

SPAR Strategic Portfolio Analysis Reviews

TACOM Tank – automotive Armaments Command

TACON Tactical Control

TARDEC Tank Automotive Research Development and

Engineering Center

TDA Table of Distribution and Allowances

USC United States Code

VCE Virtual Contracting Enterprise

Appendix E – OPSEC Approval

					E-mail Form		Print Form	
PEO CS&CSS OPSEC REVIEW CERTIFICATION (OPSEC Program is Governed by AR 530-1, Operations Security)								
I am aware that there is foreign intelligence interests in publicly available information; I attest that I have sufficient technical expertise in the subject matter to certify that it is appropriate to release this information to the public and I further attest that there are no operational, legal, or security								
reasons for withholding the information. DESCRIPTION OF INFORMATION FOR REVIEW								
Title/Description:								
Current Effects of Army Material Command Operation Order 16-189 at TACOM LCMC								
(STEP 1) Author/Originator	Organization					Phone #:		
John Gates	TACOM Legal				313-615-7662		-615-7662	
Are you a contractor? YES NO If YES, Contract #:								
Forum where this information is to appear:								
DAU library and LTU submission for master's degree								
Purpose of release:								
Requirement for Senior Service College Fellowship publishing								
Product Format (check one): Article Briefing Web Site Equipment Display Video Tape Brochure CD								
(STEP 2) TECH REVIEWER/TEAM LEADER: © Concur Concur with Comment NonConcur								
Comments: Michael Fraley								
FRALEY MICHAEL Deputy signal by FRALEY MICHAEL R 1000PGISCO GRACE			de: Position:				Phone:	
FRALEY.MICHAEL			Technical Reviewer			248-854-8929		
(STEP 3) Gov't Supervisor/Assoc Dir: ©Concur Concur with Comment NonConcur								
Comments:								
Deborah DiCesare								
Signature DICESARE DEBORAHA. 123 Definity results DECEMBER DECORATE A TROMBUS ON CONTROL OF THE PROPERTY OF TH			Position: Directo		ĺ	Phor 586	ne: -276-2121	
(STEP 4) Gov't Contracting Officer (if applicable): Concur Concur with Comment Non-Concur								
Comments:								
NA								
Signature		Pho	ne:					
(STEP 5) Legal Office Review (If applicable): Concur Concur with Comment Non-Concur								
Comments:								
NA NA								
Signature		Pho	ne:					
(STEP 6) OPSEC Officer: © Concur Concur with Comment Non-Concur								
Comments:								
David A. Hazelip								
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(STEP 7) Public Affairs Reviewer: © Concur Concur with Comment Non-Concur								
Comments: Donald Jarosz								
Signature JAROSZ. DONALD.F.1230518269 Signature		Pho	ne:	586-282-8820				
Signature PAROSZ, DONALD, F.1.230318209 and parameter pa								
Additional comments can be entered on page 3 of this form								

Appendix F - Author Biography

Mr. John D. Gates is currently a Senior Service College Fellow and most recently served as acting division chief of the Army Materiel Command-Warren Legal Office from 2015 to 2016. In this position he was responsible for overseeing two branch supervisors and fourteen attorneys who provide legal support to ACC Warren, PEO Combat Support & Combat Service Support, PEO Ground Combat Systems and TACOM LCMC's Arsenals and Depots. Mr. Gates is also a Navy Reserve Judge Advocate General assigned to the Region Legal Service Office Midwest serving as chief of the Command Services Department.



From 2012 to 2014, Mr. Gates served as a branch chief in the AMC-Warren Legal Office supervising the legal work and professional development of eight attorneys. In this capacity his branch provided

legal support to numerous ACAT I and enterprise service programs including: Afghan National Maintenance Strategy, Armored Multi-Purpose Vehicle, Ground Combat Vehicle and TACOM Strategic Service Solutions.

From 2005 to 2012, Mr. Gates served as a senior contract and fiscal law attorney at Army Sustainment Command, Rock Island Arsenal, Illinois. At Army Sustainment Command he provided legal counsel to numerous programs in direct support of PEO Ammunition and Army Contracting Command's Reach Back Division. He was the legal advisor to the Army managed contracts providing DoD and DoS security services in Iraq from 2010 to 2011. In 2008 he was selected to deploy to Kuwait in support of Army Contracting Command's efforts to rebuild and reform its contracting centers in the CENTCOM area of responsibility; a mission he continued to support through 2012. From 2006 to 2007 he was the primary attorney supporting the competitively awarded production and operations contract for the Iowa and Milan Army Ammunition Plants.

Mr. Gates served as an active duty Naval Officer and Judge Advocate General from 1996 to 2005. He entered active duty from Officer Candidate School in 1996. His active duty assignments included: air intelligence officer at both Atsugi, Japan and embarked on USS Independence and USS Kitty Hawk; officer in charge of the branch legal units at Brunswick, ME and Everett, WA; and temporary assignment to Ft. Belvoir, VA and Guantanamo Bay, Cuba in support of the Criminal Investigation Task Force.

Mr. Gates currently serves as a Commander in the Navy Reserve JAG Corps. His reserve duty began in 2005. His assignments include reserve units supporting: Naval Legal Services Office, Naval Station Great Lakes, IL; US Strategic Command HQ, Offutt, NE; Commander Naval Forces Europe/Africa, Naples, Italy; Commander Sixth Fleet, Naples, Italy; and US Africa Command HQ, Stuttgart, Germany. He completed a six month tour with US Africa Command HQ Office of Legal Counsel in July, 2016.

Mr. Gates is a 1995 graduate from the University of Iowa, receiving Bachelor of Arts degrees in history and political science. He received his Juris Doctor degree from Hamline University School of Law in 1998. He is licensed to practice in Minnesota and in front of the Navy and Marine Corps Court of Criminal Appeals. He currently lives in Grosse Pointe Farms, MI with his wife Maura and children Michael, Sean and Elizabeth.